

PROFESSIONAL ENDORSEMENTS
FOR
VERMONT EDUCATORS

9/2/2003

5440 LICENSING ENDORSEMENTS

QUALIFICATIONS FOR SPECIFIC ADMINISTRATOR ENDORSEMENTS

Applicants for the following administrator endorsements shall meet the qualifications set forth for the specific endorsement.

Adult Services Coordinator (5440-20)
Career and Technical Center Director (5440-92)
Director of Special Education (5440-86)
Principal (5440-91)
Superintendent (5440-90)
Supervisor (5440-75)

5440-20 Adult Services Coordinator

The holder is authorized to provide comprehensive service to adults as appropriate to design, implement, and maintain educational/employment and training programs in Vermont secondary schools and career and technical centers.

In order to be judged as competent, the applicant shall meet the following qualifications:

1. Hold a master's degree, or its equivalent, in Education or Administration and have a concentration in Educational Administration.
2. Have five years of recent relevant work experience in one of the following fields:

 adult or technical education,
 business or industry,
 or public or private social services.
3. Meet the [General Competencies](#) specified for school district administrators with the exception of 9.7 regarding school construction.
4. Demonstrated knowledge of the principles and practices useful for the development and implementation of a comprehensive adult service program, including knowledge of education, administration, business, and community as evidenced by;

 three (3) years of successful teaching experience

 or

 an equivalent learning experience such as experience in preparing and implementing programs in adult education, training or personnel management or human resources development and/or employment counseling.

5440-92 Career and Technical Center Director

The holder is authorized to serve as director of a career and technical center. An educator serving as Assistant Career and Technical Director, however named, shall hold a Career and Technical Center Director Endorsement.

In order to be judged as competent, the applicant shall meet the following qualifications.

1. Hold a Master's degree, or its equivalent, in Education or Administration and a concentration in educational administration.
2. Have five or more years of experience in education, business, or industry, or work in public or private agency or foundation, including:
 - a. three or more years of technical education teaching or training experience in the public or private sector;
 - b. two or more years of work experience not related to educational or training experience;
 - c. one or more years of successful experience as head of a department of technical education or other administrative or managerial work experience; this experience may be included in meeting requirements of section b.
3. Meet the [General Competencies](#) specified for school district administrators
4. Knowledge of local, state and federal laws related to technical education, labor and industry.

5440-86 Director of Special Education

The holder is authorized to provide, administer, supervise, and evaluate special education programs and services, and to coordinate them with regular education programs, home-based services, and community-based services for students with disabilities. An educator serving as an Assistant Director of Special Education, however named, shall hold a Director of Special Education endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. A master's degree
2. Competence in the following areas:
 - a) Fundamentals of educational administration/leadership
 - b) School law
 - c) School finance or school business management
 - d) Staff evaluation/development
 - e) Curriculum management (i.e., development/supervision/evaluation)
 - f) School/community relations
3. Three or more years of experience as a licensed special educator, educational speech language pathologist, school psychologist, school counselor, or reading coordinator/specialist.
4. The [General Competencies](#) for School District Administrators
5. Knowledge of local, state and federal laws and regulations concerning the education of students with disabilities.
6. The ability to develop, coordinate, administer, and evaluate programs of direct services to students with disabilities including screening; assesment; eligibility determination; selection, development of IEPs; development, and adaptation of educational materials, curricula, and instructional strategies; evaluation of student progress; and integration of students with disabilities into the regular classroom setting.

5440-91 Principal

The holder is authorized to serve as a school principal. An educator serving as an Assistant Principal, however named, shall hold a Principal endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. A master's degree
2. Competence in the following areas:
 - a) Fundamentals of educational administration/leadership
 - b) School law
 - c) School finance or school business management
 - d) Staff evaluation/development
 - e) Curriculum management (i.e., development/supervision/evaluation)
 - f) School/community relations
3. Three or more years of experience as a PK-12 educator.
4. The [General Competencies](#) for School District Administrators

5440-90 Superintendent

The holder is authorized to serve as the chief executive officer of a school district. An educator serving as an Assistant Superintendent , however named, shall hold a Superintendent endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. A master's degree
2. Competence in the following areas:
 - a) Fundamentals of educational administration/leadership
 - b) School law
 - c) School finance or school business management
 - d) Staff evaluation/development
 - e) Curriculum management (i.e., development/supervision/evaluation)
 - f) School/community relations
3. Five or more years of experience including:
 - a) three or more years of experience as a PK-12 educator, and
 - b) two or more years of educational administration experience.
4. The [General Competencies](#) for School District Administrators

5440-75 Supervisor

The holder is authorized to supervise and evaluate instructional personnel and/or programs within the supervisor's specific area(s) of expertise.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. A master's degree
2. Three or more years of experience as a PK-12 educator.
3. The [General Competencies](#) for School District Administrators with the exception of those listed under #7 (Fiscal Planning and Budget Management) and #9.7 (School Construction).

GENERAL COMPETENCIES FOR SCHOOL DISTRICT ADMINISTRATORS

Applicants for administrator endorsements shall demonstrate the following knowledge and skills.

LEADERSHIP CATEGORIES

1) VISIONARY PLANNING

- 1.1 identifies the need for systemic change and can serve as an agent for that change
- 1.2 builds with others a shared vision of standards-based learning and teaching
- 1.3 understands strategic planning processes and involves others in strategic plan development
- 1.4 helps define and articulate the vision to the school community.
- 1.5 with others, develops and plans implementation of a comprehensive action plan to improve student learning within the school and assesses student performance under the plan.
- 1.6 uses individual student and systems data for continuous program improvement efforts including the development of a local action plan based on student performance and other indicators .
- 1.7 develops and monitors long range plans for school and district technology and information systems
- 1.8 understands the nature of internal and external political systems and environments as they apply to schools and affect educational change
- 1.9 develops an effective and interactive community public relations program with multiple communications applications which includes using and responding to electronic and printed news media.
- 1.10 understands the impact of the quality components of the Equal Educational Opportunity Act of 1997 and subsequent amendments for systemic change to improve student learning.

2) INTERPERSONAL SKILLS

- 2.1 understands and is responsive to needs of others
- 2.2 is articulate and clear in verbal and written communications
- 2.3 promotes and models effective communication skills
- 2.4 understands and effectively uses skills and strategies of problem solving, consensus building, conflict resolution, stress management and crisis management

- 2.5 provides constructive feedback to others to further continuous improvement.
- 2.6 models respect, understanding, sensitivity, and appreciation for all people and balances the rights of multiple and diverse groups.
- 2.7 manifests and promotes professional ethics and values.

3) **COLLABORATIVE SKILLS**

- 3.1 uses knowledge of motivational theory, group dynamics, process skills, organizational theory/management and systemic change to create conditions for success for students, families and staff.
- 3.2 works with others to define problems, examine alternatives, and find solutions.
- 3.3 demonstrates shared leadership practices and empowers others in fulfillment of school vision.
- 3.4 models and encourages collaboration

4) **PARTNERSHIPS**

- 4.1 promotes and models effective collaboration and partnerships with parents, community, social service agencies, state agencies, higher education institutions, business, and industry to support student learning.
- 4.2 evaluates partnerships for their impact on the school/district mission.
- 4.3 understands the role of school/community relations and school governance in furthering the school/district vision.
- 4.4 understands the role and relationship between school boards and school personnel.
- 4.5 understands the value of school/community partnerships to maximize school resources.
- 4.6 demonstrates ability to report student performance results and other pertinent school and community indicators cited in the Equal Educational Opportunity Act of 1997 to the community in a manner that is easily understood by the general public.
- 4.7 advocates for local, regional, and state educational policy for the advancement of Vermont learners.

MANAGEMENT CATEGORIES

5) PERSONNEL

- 5.1 understands recruitment, selection, and maintenance of a qualified staff attending to equity and diversity.
- 5.2 understands the role and processes of licensure and relicensure including the roles and responsibilities of standards boards.
- 5.3 understands staff utilization according to student achievement and development, best practices, efficiency, cost, and quality.
- 5.4 understands labor relations, collaborative negotiations, and contract management.
- 5.5 understands theories, principles, and best practices of staff supervision and evaluation and links supervision and evaluation to effective implementation of standards-based instruction and assessment .
- 5.6 understands a variety of theories, principles, and best practices of professional development which will result in improved professional practice.
- 5.7 understands the need for him/herself and other staff to reflect on practice, seek opinion from others and apply the results to guide professional growth.
- 5.8 understands a variety of theories, principles, and best practices for needs-based staff development programs that are connected to student standards and that will result in improved student learning consistent with the school/district vision and action plans.

6) CURRICULUM, INSTRUCTION AND ASSESSMENT

- 6.1 coordinates planning, implementation, and evaluation for the improvement of educational programs.
- 6.2 coordinates standards-based curriculum efforts within and among schools.
- 6.3 understands theories and principles of learning and human development birth through adulthood.
- 6.4 understands standards-based curriculum, instruction and assessment; integrated curriculum; and the use of student performance data; and understands their implications for curriculum development that results in improved student learning.

6) **CURRICULUM, INSTRUCTION AND ASSESSMENT (Cont'd)**

- 6.5 understands multiple instructional strategies.
- 6.6 accesses, uses, and conducts research
- 6.7 plans for coordination of multiple services for schools and students
- 6.8 understands diversity and its meaning for educational programs.
- 6.9 develops a comprehensive system of education that will foster success for all students, including students with disabilities as well as gifted and talented students.
- 6.10 demonstrates ability to plan and carry out a developmentally-appropriate, standards-based comprehensive assessment program that includes the effective use results to improve student learning.
- 6.11 understands how to report and use assessment results to inform the school community, develop school action plans and modify school programs.
- 6.12 uses technology, telecommunications, and information systems to enrich curriculum and instruction.

7) **FISCAL PLANNING AND BUDGET MANAGEMENT**

- 7.1 demonstrates an understanding of school finance and resource planning including how to evaluate financial resources for effectiveness
- 7.2 applies knowledge of budget and fiscal planning and principles of management and accountability
- 7.3 demonstrates the ability to plan and manage resources according to school/district vision and action plans.
- 7.4 understands and applies accounting principles in accordance with Governmental Generally Accepted Accounting Principles for State and Local Government (Governmental Gap) and Handbook for Financial Accounting of Vermont School Systems (Handbook II) for sound fiscal management of school budgets and special accounts.
- 7.5 understands the implications of labor relations, negotiations, and contracts on administration
- 7.6 applies and assesses current and future technologies for school management and business procedures.

8) **EDUCATIONAL LAW**

- 8.1 applies principles of Federal and Vermont school law; state regulations; and local school board policies to daily school situations.
- 8.2 understands the intent and components of the Equal Educational Opportunity Act of 1997 and subsequent amendments.

9) **SAFE AND EFFECTIVE LEARNING ENVIRONMENTS**

- 9.1 creates a learning atmosphere to encourage respect for self and others, positive social interaction, positive self and group esteem, and personal wellness.
- 9.2 understands the need for and promotes freedom from discrimination in the school community.
- 9.3 understands principles and issues of school safety and security.
- 9.4 understands current technologies that support a safe and effective learning environment.
- 9.5 understands principles and issues relating to school facilities and use of space.
- 9.6 develops and administers policies that provide a safe school environment and promote student health and welfare.
- 9.7 understands school construction and modification processes.

5440-02 Art

The holder is authorized to teach art in grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of art and art education concepts and skills delineated in current national professional standards¹ and in Vermont's *Framework of Standards and Learning Opportunities* including:

The processes and stages of children's and/or adolescents' artistic and aesthetic development

The historical development and role of the visual arts in contemporary and past cultures and time periods

Art theory, including an understanding of the visual arts as a fundamental expression of human emotion and form of communication

Philosophies and methods of art education (e.g., Process Models of art education, Discipline-Based Art Education)

Principles, purposes, and design of assessments in the visual arts, including the concepts of critical response and self-assessment

The elements and principles of two and three dimensional design (line, shape, color, value, texture, space, form, balance, pattern, rhythm, dominance, contrast, and movement)

Expertise in one or more of the visual arts (i.e. architecture, crafts, drawing, painting, photography, printmaking, or sculpture), as demonstrated by presentation and exhibition of one's work

Basic command of a variety of arts media (clay, tempura, etc.), including an understanding of the different properties each possesses

Performance Standards:

Implements a visual arts curriculum that enables students to experience the beauty, emotional intensity, and thoughtfulness of art through making, studying, interpreting, and evaluating works of art. Specifically, the educator:

Creates an emotionally and physically safe environment where artistic risk-taking, self-exploration, collaboration, discovery, experimentation, problem solving, and reflection can take place

Creates, selects, and adapts a variety of resources, materials, and technologies, that support students as they learn through and about art

Models the use of the vocabulary of the visual arts to describe and respond to works of art

5440-02 Art (Cont'd)

Creates opportunities for students to learn tolerance and respect for others through instruction in the multicultural nature of art history

Uses a variety of appropriate methods, including student self-assessment, to assess students' artistic development, and uses assessment results to evaluate the effectiveness of one's teaching and curriculum

Adapts materials, tasks, etc. to ensure the full access of all students, including special needs students, to a rich visual arts education

Integrates classroom curricular themes with the art curriculum (early childhood/elementary)

Advocates for a rich visual arts education for all students at the earliest possible age

Additional Requirements:

A major in art, or the equivalent in undergraduate and/or graduate coursework.

A minimum of a practicum, or the equivalent, in art education at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in art education at **both** the PK-6 and 7-12 instructional levels is required.

¹ e.g., *National Standards for Arts Education* (1994, Music Educator's National Conference)

5440-39 Bilingual Education

The holder is authorized to teach students who are English Language Learners (ELL) and/or native speakers of English, in a language other than English, as well as in English. This endorsement is limited to holders of endorsements in early childhood, elementary education, middle grades, special education, English as a Second Language, or science, social studies, mathematics, or English language arts. The holder's language(s) of concentration and instructional level shall be indicated on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. Proficiency in a second language, including listening, speaking, reading and writing skills.
2. Knowledge of the special problems and unique qualities for bilingual-multicultural education, including a respect for cultural diversity and a special sensitivity to the development of self-concept and special needs of children of different cultures, as well as knowledge of the history and culture of peoples associated with the students' dominant language.
3. Knowledge of the differences between the sound systems, forms and structures of the second language and English, as well as knowledge of sociolinguistics and psycholinguistics necessary to understand the differences and commonalities between the two sound systems.
4. Knowledge of how to assess students' language abilities and how to adapt instructional materials to meet students' needs and abilities.
5. Ability to teach (contingent upon holding an endorsement in the subject area) subject matter in the students' dominant language, according to the students' needs and abilities.
6. Ability to develop students' awareness of and appreciation for cultural diversity.
7. Ability to assist students in maintaining and extending identification with and pride in their first culture, while at the same time facilitating learning to be successful in the dominant culture.
8. Ability to assist students in maintaining and extending their command of their first language as well as the English language.
9. Ability to involve students in the culture and history of their ancestry to help develop their understanding of the contribution of their cultural or ethnic group to American culture, history and life style.
10. Ability to identify cultural biases in existing curricula, materials, and/or teaching techniques and to modify these as appropriate.
11. Ability to foster the relationship between families of bilingual students and the schools.
12. Ability to stimulate community participation in the school program and to enhance sociocultural exchanges among all groups.

5440-14 Computer Science

The holder is authorized to teach computer science in grades 7-12

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of essential computer science concepts and skills including:

Program and algorithm design; data structures; object-oriented program design; and high level languages

Computer hardware architecture

Programming languages, including the definition and structure of languages and comparison of existing high level languages

Fluency in at least two high level languages used in current pedagogy

The function, application, capabilities, and limitations of computers

The social and ethical implications of computers and their related technology

The mathematical principles which are the basis of many computer applications including algebra, set theory, coordinate systems and graphs, matrices, and probability and statistics

The concepts, vocabulary, and issues found in two or more of the sub-disciplines of computer science (including but not limited to: computer architecture; artificial intelligence; data and knowledge bases; ethics; graphics; human-computer interaction; networks and data communication; programming languages; and software engineering)

The specification, design, implementation, testing, modification, and debugging of software

Performance Standards:

Implements an inquiry-based computer science curriculum that integrates conceptual understanding and skill development. Specifically, the educator:

Designs and implements instructional activities for students that reinforce the topics, concepts, and skills central to computer science listed above

Develops appropriate assessment criteria for student developed software based on software quality attributes (e.g. reusability, maintainability, testability, etc.)

Designs and implements activities which reinforce verbal and written technical communication skills

Recognizes and supports creative and alternative solutions

5440-38 Dance

The holder is authorized to teach dance in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. Knowledge, understanding, and appreciation of dance in contemporary and past cultures including western and non-western societies including:
 - a. knowledge of various types of dance, including ballet, ballroom, ethnic, folk, jazz, and modern;
 - b. knowledge of dance history and philosophy, including geographic and cultural influences;
 - c. knowledge of the essential elements of statecraft, dance accompaniment, and music; and
 - d. knowledge of basic dance writing and notation.
2. Knowledge of aesthetic theory including an awareness of dance as a fundamental expression of human communication and emotion.
3. Knowledge of:
 - a. the vocabulary of dance, the elements of time, space, and energy and their use in the making of a dance as well as knowledge of the creative process with specific application through improvisation in dance; and
 - b. basic anatomy, the principles of kinetics movement, nutrition, and healthful body maintenance practices.
4. Concentrated study of techniques resulting in in-depth mastery of at least one dance style, as well as experience in performing and staging.
5. Knowledge of developmental stages of children and how to apply appropriate teaching methods to help children perceive and express themselves and interpret their thoughts and feeling through a medium in the performing arts; and to appreciate the role of the performing arts in their lives.
6. An understanding of the divergent approaches essential to fostering the creative process.
7. Experience with teaching a performing art to individuals, small groups, and larger groups.
8. Ability to motivate students and develop their appreciation of music, dance, or drama.

5440-38 Dance (Cont'd)

9. Ability to teach, demonstrate, and/or practice the following:
 - a. the elements of dance;
 - b. to select appropriate dance materials to meet the motor skill development needs of students;
 - c. to choreograph and select appropriate materials and theatrical accompaniments to relate to dance performances;
 - d. to demonstrate and teach a variety of dance styles.
10. Ability to develop students' unique capabilities through teaching the basic principles of music, dance, or drama, and through rigorous practice in that medium.
11. Ability to arrange and adapt the curriculum and experience to meet the needs and abilities of students.

5440-30 Driver and Traffic Safety Education

The holder is authorized to teach driver and traffic safety education in grades 9-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

The educator demonstrates a thorough knowledge of:

1. In-vehicle instructional techniques and the Zone Control philosophy of driving
2. Driver and traffic safety education, including methods and materials for teaching driver and traffic safety education and administration of a driver and traffic safety education program
3. General traffic safety (e.g., other highway users), vehicular law, the relationship between substance abuse and operating a motor vehicle, emergency driving techniques, general first aid, and insurance and financial responsibility
4. An area of the behavioral sciences such as educational psychology, adolescent psychology, or human development

Performance Standards:

Specifically, the educator:

1. Provides students with positive attitudes toward safe driving with special emphasis on having students understand the serious responsibilities associated with safely operating a motor vehicle
2. Provides students with the necessary skills to perform responsibly as they interact with other highway users in routine and difficult system environments
3. Plans, organizes, implements, and evaluates a driver and traffic safety education program, including procuring vehicles, performing the necessary recordkeeping, and carrying out other administrative duties associated with driver education
4. Models for students at all times a high level of self-driving performance
5. Maintains effective public relations with the community, including remaining aware of community needs and making the community aware of the need for driver education

A driver and traffic safety education endorsement limited to in-vehicle instruction only shall be issued to individuals who meet Knowledge Standard 1 and Performance Standards 1, 2 and 4, as well as the Additional Requirements below.

Additional Requirements:

Possess a valid Vermont Motor Vehicles Operator's license, or a valid operator's license from an adjacent state provided the person is a legal resident of that state, with at least five years of driving experience

5440-30 Driver and Traffic Safety Education (Cont.)

Have and maintain a model driving safety record defined as:

- no more than one moving traffic conviction in the preceding one year period
- no more than three moving traffic convictions in the preceding three years
- no alcohol or drug related traffic convictions within the preceding ten years
- no driver's license suspension, cancellation, revocation, or denial within the preceding ten years

Provide a letter stating approval to proceed with licensure from the VT Department of Education Driver Education Consultant. This approval shall state whether the individual is being recommended for the full endorsement or the endorsement limited to in-vehicle instruction only.

5440-36 Early Childhood Education

The holder is authorized to teach young children birth through grade three.

In order to qualify for this endorsement, the candidate shall demonstrate that he/she meets the knowledge and performance standards for professional knowledge of early childhood education, as well as the knowledge and performance standards for the four core content areas as follows:

Knowledge Standards – Professional Knowledge:

Demonstrates a thorough understanding of the developmental nature and needs of young children from the prenatal stage through middle childhood, and of ways to organize, implement, and assess curriculum and instruction; structure learning environments; and collaborate with families and community organizations to maximize young children's learning and development. Specifically the educator understands:

The progression of prenatal through middle childhood growth and development within each domain (i.e. cognitive, linguistic, social, physical, and emotional) including:

- The broad theories of child development
- The wide variation in how young children learn and typically develop
- The characteristics and signs of atypical development in young children and the challenges these present to learning and development
- The importance of sensory exploration and play to infants', toddlers', and young children's cognitive, motor, perceptual, linguistic, and social development
- The role of biological, genetic, environmental, and cultural factors in children's development and their impact on exceptionalities
- The importance of secure, responsive relationships and consistency of caregivers to young children's learning and healthy development, including the importance of attachment as a primary marker of healthy development of infants and toddlers
- The role of families as the primary context for young children's development, including the importance of parents' expectations for their children, and how young children's development is affected by and affects parents, siblings, and extended family

Family systems theory and principles of family-centered practice, including how to work cooperatively and respectfully with all families to support children's learning and development

Resources and programs available in the community for the support of young children and their families

Vermont's learning expectations for all children as delineated in current state standards for students and the articulation of those standards for infants, toddlers, and young children¹.

Curricular design and instructional strategies that build upon children's play and curiosity and engage the unique intellectual and psychosocial nature and needs of young children

Appropriate strategies for assessing young children's learning and development

5440-36 Early Childhood Education (Cont'd)

Music, drama, and the visual arts as expressions of human emotion and culture; powerful forms of communication; and vehicles for enhancing learning opportunities across the curriculum

The importance of physical and psychological environments on young children's growth and development and ways to organize learning environments and orchestrate interactions in order to promote young children's holistic development

Health and safety issues including procedures regarding disease and accident prevention, hygiene, and first aid; the signs of emotional stress, harassment, child abuse and neglect in young children; state and federal laws and regulations pertaining to early childhood educators and programs

Performance Standards – Professional Knowledge:

Early childhood educators draw upon their knowledge of child development and learning theory; the interests, needs, and backgrounds of their children; their relationships with children's families; and their knowledge of subject matter, integrated curriculum, and appropriate assessment to design and implement developmentally and individually appropriate learning experiences that enable children to explore challenging concepts and develop essential foundational skills in purposeful and engaging ways. Specifically, the educator:

Demonstrates respect for children's diverse family structures, values, and traditions

Collaborates with parents/caregivers, school, and community personnel to enhance children's learning, growth, and development, including planning and facilitating collaborative conferences and educational programs and helping families to secure appropriate services

Develops an integrated curriculum that grows out of children's interests and questions, incorporates skills and concepts from across the language arts, mathematics, science, social studies, and the arts, reflects culturally valued content and children's home experiences, and addresses all the developmental domains

Implements curriculum using a variety of learning strategies, including play-based and teacher-directed approaches, in order to meet the needs of all young children

Responds to and follows children's leads, including recognizing and supporting child-initiated play both indoors and outdoors, and developing activities to incorporate and extend their individual interests

Integrates the performing and visual arts within the curriculum and facilitates and encourages children's creative expression through a variety of media

Employs a variety of methods to systematically observe, record, monitor, and document young children's activities and behavior for the purpose of planning appropriate and individualized programs, environments, and interactions

Participates with other professionals in developing and implementing individualized service and educational plans for young children with disabilities and ensures that assessments are family sensitive

Complies with state and federal legal and regulatory requirements pertaining to early childhood educators and programs

Plans indoor and outdoor environments that are safe, stimulating, engaging, and intentionally designed to support curricular goals

5440-36 Early Childhood Education (Cont'd)

Anticipates conflicts and orchestrates activities and interactions to promote the prosocial development of young children in the areas of self-awareness, personal responsibility, and respect for self and others, including explicitly modeling how to engage in equitable and respectful conversation and behavior

Implements appropriate hygiene and nutrition procedures and practices, and models the skills essential to healthy choice making

Creates a welcoming environment, including establishing routines to inform parents about their child's day and to assist parents to separate and reunite with their child

Designs and evaluates processes that support children's transitions among and across programs and settings

Knowledge Standards – English Language Arts, Mathematics, History/Social Sciences, and Science:

English Language Arts

Demonstrates knowledge of research-based principles and processes underlying literacy development, and the components of effective early literacy instruction, as delineated in current national professional standards² and reflected in *Vermont's Framework of Standards and Learning Opportunities*. Specifically, the educator understands and/or knows:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the development of emergent and early literacy, including the ways in which creative and active early learning environments provide opportunities for establishing the foundations of literacy; the impact of physical, emotional, and cultural factors on language development and acquisition of reading and writing; role of metacognition in language and literacy development; the elements of effective verbal and non-verbal communication

Literature and Media – A wide variety of quality, age-appropriate literature across genres, eras, cultures, and subcultures; literary elements and strategies for textual analysis

Language and Word Study – The purposes of language and approaches to analyzing language; the pronunciation of English phonemes and their graphemes; the developmental progression of phonological awareness; vocabulary development and its relationship to literacy acquisition; the developmental stages of spelling and morphological analysis

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, including typical features of beginner texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency of beginning and developing readers

Written Expression – Writing as symbolic representation and the stages of early writing development, including drawing; the composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios and benchmarks and standards for various age/grade levels

5440-36 Early Childhood Education (Cont'd)

Assessment and Adaptation of Literacy Instruction – The importance of individualizing the literacy program to address the needs and strengths of learners; a variety of valid and efficient language arts assessments appropriate for different purposes; the observable characteristics of a variety of reading and writing difficulties; strategies for modifying literacy instruction to support the needs of individual learners, including English Language Learners (ELL's)

Mathematics

Demonstrates knowledge of mathematical content, concepts, and skills delineated in current national professional standards³ and in *Vermont's Framework of Standards and Learning Opportunities* including:

National Council of Teachers of Mathematics (NCTM) process skills as vehicles for acquiring and using mathematics content knowledge

Essential early numeracy concepts and their development, and typical misconceptions in mathematical reasoning held by young children

Specific content in the areas of number and operations; algebra and functions; geometry and measurement; and, data analysis, statistics, and probability, recommended for elementary teachers in *The Mathematical Education of Teachers* (2001, Conference Board of the Mathematical Sciences)

History and the Social Sciences

Demonstrates knowledge of historical and social science content, concepts, and skills in the areas of development of children's historical thinking; history; cultural geography; diversity, unity, identity, and interdependence; and citizenship as delineated in current national professional standards⁴, in *Vermont's Framework of Standards and Learning Opportunities*.

Science

Demonstrates knowledge of scientific content, concepts, and skills in the areas of development of children's scientific thinking; the scientific inquiry process; life sciences; physical sciences; Earth, environmental, and atmospheric sciences; and living and non-living systems, as delineated in current national professional standards⁵ and in *Vermont's Framework of Standards and Learning Opportunities*.

Performance Standards – English Language Arts:

Creates a literacy environment and implements a language arts curriculum that fosters interest and growth in all aspects of oral and written literacy in order to provide children with the communication skills necessary to understand and influence their own lives and to learn about the world. Specifically, the educator:

Literacy Development through Literature and Media –

Makes easily accessible to children a wide variety of engaging, age-appropriate fiction and non-fiction textual materials, including picture books, "big books", and chapter books

Selects and reads quality literature aloud and applies tools of literary analysis to the facilitation of discussions of central themes and ideas

5440-36 Early Childhood Education (Cont'd)

Uses active instructional strategies to support emergent and early literacy

Implements strategies to include parents as partners in their children's literacy development

Language and Word Study –

Engages in one-on-one and small group dialogue with children about their ideas, activities, interests, and motivations in order to promote oral language development and model conversational skills

Uses a variety of explicit and interactive approaches to teach key aspects of word study such as phonemic awareness, print concepts, and decoding

Teaches children to use syntactic, semantic, and graphophonemic cues to identify and spell words

Employs effective instructional strategies for the development of a broad vocabulary

Reading Comprehension and Fluency –

Provides explicit instruction in how to flexibly use pre-, during, and post-reading cognitive strategies to understand, analyze, and interpret a variety of types of texts

Employs a range of instructional approaches to support comprehension across the content areas

Uses instructional strategies to build or strengthen fluency

Written Expression –

Encourages drawing as a precursor for written expression

Provides multiple opportunities for beginning writers to learn that print carries meaning (e.g., by demonstrating for children the connections between their illustrations and words), to use writing purposefully, and to explore sound-symbol relations

Organizes and implements a writing portfolio program that promotes high quality writing by including a variety of instructional strategies and topics to teach purposes, structures, and composition

Uses required writing rubrics and benchmarks for assessing children's writing and teaches children to use these to analyze their own writing

Models and teaches appropriate grammar, usage, and mechanics

Implements strategies to build fluency, accuracy, and automaticity in handwriting to support composition

Assessment and Adaptation of Literacy Instruction –

Uses a variety of valid assessment strategies (including records of oral reading) to regularly evaluate children's progress in all of the individual dimensions of literacy development

Uses the results of literacy assessments to adjust and/or target instruction, to flexibly group children, when needed, and to appropriately match children with reading material

5440-36 Early Childhood Education (Cont'd)

Performance Standards – Mathematics, History and the Social Sciences, and Science:

Implements inquiry-based mathematics, history/social sciences, and science curricula that integrate skills and content and enable conceptual development and development of the habits of mind that support inquiry within each discipline. Specifically, the educator:

Mathematics

Anticipates, elicits, and corrects typical misconceptions in mathematical reasoning

Models the habits of mind of flexibility and perseverance that support mathematical learning

Employs a range of instructional activities and resource materials to support the development of early numeracy concepts, and to reveal the application of mathematics to everyday life

Designs and incorporates mathematical tasks/activities that capitalize upon children's intuitive insights and language and that enable children to investigate, explore, and discover structures and relationships; create and use mathematical models; apply informal strategies to solve mathematical problems; formulate and solve problems individually and collaboratively; and justify and communicate their conclusions orally and in writing

Communicates mathematical ideas using appropriate mathematical language and representations, and teaches children to use both to communicate about mathematical ideas

Uses required mathematics scoring guides and benchmarks to evaluate student work and teaches students to use both to evaluate their own work

History and Social Sciences

Incorporates activities that enable children to make connections between themselves and the larger world, including sharing and experiencing different cultures and traditions, and exploring the relationship between people and their environments

Designs and implements activities that use children's own stories as a way to introduce the chronological thinking essential to historical thinking

Provides opportunities for children to learn about their communities through active learning strategies (e.g., building classroom systems based on real-life systems such as a barter economy or postal system), to participate in community-based investigations and service projects, and to access and use local historical resources

Provides opportunities for children to explore and use historical, geographical, and social science tools and methods

Science

Anticipates and elicits the naïve scientific ideas, emerging concepts, and/or misconceptions that young children are likely to have prior to instruction

Models the skills and habits of mind inherent in scientific inquiry

5440-36 Early Childhood Education (Cont'd)

Provides opportunities for children to raise questions, become aware of the scientific nature of their questions, and to investigate their questions using the scientific method

Designs a variety of activities that allow children to build on their own intuitive explanations of how things work, as they acquire more sophisticated scientific understandings

Creates opportunities for children to collaboratively design and implement scientific investigations, and to present and discuss the results of their investigations

Conducts investigations according to safe scientific procedures

Integrates scientific tools appropriate to children's ages and abilities in order to facilitate inquiry

Demonstrates sensitivity to inequities in science and mathematics teaching by incorporating specific instructional strategies that promote equity

Additional Requirements:

A minimum of a practicum, or the equivalent, in early childhood education at the birth-to-5 and/or 5-8 age levels, depending on the authorization sought. For the full birth through grade three authorization, a minimum of a practicum, or the equivalent, in early childhood education at **both** the birth-to-5 and 5-8 age levels is required.

¹ *Vermont Early Learning Standards: Guiding the Development and Learning of Children Entering Kindergarten.* (Vermont Department of Education Early Childhood Work Group, Fall, 2003)

² e.g., *Standards for Reading Professionals* (International Reading Association, 1998); *Every Child Reading: A Professional Development Guide* (Learning First Alliance, 2000); *Standards for the English Language Arts* (International Reading Association/National Council of Teachers of English, 1996)

³ e.g. *The Mathematical Education of Teachers* (Conference Board of the Mathematical Sciences, 2001), *Principles and Standards for School Mathematics* (National Council of Teachers of Mathematics, 2000)

⁴ e.g., *National Standards for History* (National Center for History in the Schools, 1996), *Curriculum Standards for Social Studies* (National Council for the Social Studies, 1994), *Geography for Life* (National Geographic Research & Exploration, 1994)

⁵ e.g. *National Science Education Standards* (National Academy of Sciences, 1996), *Benchmarks for Science Literacy* (Oxford University Press, 1993)

5440-42 Educational Technology Specialist

The holder is authorized to plan and implement instruction and evaluate student learning in the use and integration of educational technologies in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of topics, concepts, and skills essential to the effective integration of technology in the teaching and learning process, as delineated in current national professional standards¹ including:

The history and cultural significance of information technologies and the impact of information technology on learning, today's society, cultural diversity, and ecological sustainability

Ways technology can be used to support high-quality, standards-based curriculum, instruction, and assessment in all content areas, including instructional design principles that rely upon research-based learning theories to guide the use of computers and other technologies in education

Proficiency in current technologies

Strategies for troubleshooting and maintaining various hardware and software configurations

Ways assistive technologies can be used to support the learning of children with various forms of disabilities

Performance Standards:

Supports the effective integration of technology throughout all areas of the school's curriculum as delineated in Vermont's *Framework of Standards and Learning Opportunities*. Specifically, the educator:

Identifies, helps design, implements, and evaluates authoring, programming, and problem solving environments for use in the classroom

Designs and implements, and collaborates with classroom teachers to design and implement, tasks or projects that incorporate various technologies as tools to facilitate and enhance students' research, critical thinking, problem solving, analysis, collaboration, communication, and presentation skills

Assists classroom teachers and other staff to develop effective means of assessing students' learning of technology concepts and skills across the curriculum, and to assess technology's impact on the enhancement of student learning

Collaborates with classroom teachers and other staff to conduct needs-assessments that identify instructional problems for which information technologies might be appropriate components of the solution

Adapts to new technologies and helps teachers to integrate them into the educational process, as appropriate

Collaborates with special educators and student support professionals to identify and implement technologies to support the learning of students with various forms of disabilities

5440-42 Educational Technology Specialist (Cont'd)

Applies and models the ethical use of educational technologies

Demonstrates sensitivity to inequities in technology access in schools by incorporating and modeling specific instructional strategies that promote equity

Collaborates with other school and district staff to evaluate the effectiveness of the school and/or district's implementation of its information technology plan

¹. e.g., *National Educational Technology Standards for Teachers* (2000, International Society for Technology in Education)

5440-00 Elementary Education

The holder is authorized to teach grades K-6.

In order to qualify for this endorsement, the candidate shall demonstrate that he/she meets the knowledge and performance standards for professional knowledge of elementary education as well as the knowledge and performance standards for the four major content areas of the elementary curriculum as follows:

Knowledge Standards – Professional Knowledge:

Demonstrates a thorough understanding of the developmental nature and needs of children ages 5-12, and of ways to structure the learning environment and organize, implement, and assess curriculum and instruction to maximize students' learning and development. Specifically, the educator understands:

The progression of typical early childhood through early adolescent growth and development within each domain (i.e., cognitive, linguistic, social, physical, and emotional), including the wide variation in how students learn and typically develop, and the variety of economic, social, and cultural influences which affect each student's life

The characteristics and signs of atypical development and the challenges these present to teaching and learning

How to work cooperatively and respectfully with all families to support students' learning and development

Ways to organize the learning environment in order to promote children's holistic development

Curricular design and instructional techniques that engage the unique intellectual and psychosocial nature and needs of elementary students, including embedded literacy strategies that promote the reading and writing skill development of all students across the content areas

Music, drama, and the visual arts as expressions of human emotion and culture; powerful forms of communication; and vehicles for enhancing learning opportunities across the curriculum

Performance Standards – Professional Knowledge:

Elementary educators draw upon their knowledge of child and early adolescent development and learning theory; the interests, needs, and backgrounds of their students; and their knowledge of subject matter, integrative curriculum, and assessment to design and implement developmentally appropriate learning experiences that enable students to explore challenging concepts and issues and develop essential foundational skills in purposeful and engaging ways. Specifically, the educator:

Uses proactive, collaborative strategies to promote parent-teacher and parent-child communication about student learning and development

Provides an appropriate learning environment that promotes the developmental needs of children in the areas of self-awareness and respect for self and others

Develops and implements curricula that explore themes and concepts that transcend the disciplines and/or grades, and that help students understand how the subjects they study can be used to explore issues in their lives and in the world around them

5440-00 Elementary Education (Cont'd)

Implements curriculum using a variety of instructional strategies to ensure that all students learn the central concepts in each content area, are engaged in active learning, and to promote individual development and social cooperation

Integrates the visual and performing arts within the curriculum and facilitates and encourages children's creative expression through a variety of media

Incorporates embedded literacy strategies throughout all instruction

Knowledge Standards – English Language Arts, Mathematics, History/Social Sciences, and Science:

English Language Arts

Demonstrates knowledge of research-based principles and processes underlying literacy development, and the components of effective literacy instruction, as delineated in current national professional standards¹ and reflected in *Vermont's Framework of Standards and Learning Opportunities*. Specifically, the educator understands and/or knows:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the development of emergent and early literacy; the impact of physical, emotional, and cultural factors on language development and acquisition of reading and writing; role of metacognition in language and literacy development; the elements of effective verbal and non-verbal communication

Literature and Media – A wide variety of quality, age-appropriate literature across genres, eras, cultures, and subcultures; literary elements and strategies for textual analysis

Language and Word Study – The purposes of language and approaches to analyzing language; the pronunciation of English phonemes and their graphemes; the developmental progression of phonological awareness; vocabulary development and its relationship to literacy acquisition; the developmental stages of spelling and morphological analysis

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, including typical features of beginner texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency of beginning and developing readers

Written Expression – Writing as symbolic representation and the stages of early writing development, including drawing; the composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios and benchmarks and standards for various age/grade levels

Assessment and Adaptation of Literacy Instruction – The importance of individualizing the literacy program to address the needs and strengths of learners; a variety of valid and efficient language arts assessments appropriate for different purposes; the observable characteristics of a variety of reading and writing difficulties; strategies for modifying literacy instruction to support the needs of individual learners, including English Language Learners (ELL's)

5440-00 Elementary Education (Cont'd)

Mathematics

Demonstrates knowledge of mathematical content, concepts, and skills delineated in current national professional standards² and in *Vermont's Framework of Standards and Learning Opportunities* including:

National Council of Teachers of Mathematics (NCTM) process skills as vehicles for acquiring and using mathematics content knowledge

Essential early numeracy concepts and their development, and typical misconceptions in mathematical reasoning held by early primary to early adolescent students

Specific content in the areas of number and operations; algebra and functions; geometry and measurement; and, data analysis, statistics, and probability, recommended for elementary and middle grades teachers in *The Mathematical Education of Teachers* (2001, Conference Board of the Mathematical Sciences)

History and the Social Sciences

Demonstrates knowledge of historical and social science content, concepts, and skills in the areas of development of students' historical thinking; history; cultural geography; diversity, unity, identity, and interdependence; and citizenship as delineated in current national professional standards³ and in *Vermont's Framework of Standards and Learning Opportunities*.

Science

Demonstrates knowledge of scientific content, concepts, and skills in the areas of development of students' scientific thinking; the scientific inquiry process; life sciences; physical sciences; Earth, environmental, and atmospheric sciences; and living and non-living systems, as delineated in current national professional standards⁴ and in *Vermont's Framework of Standards and Learning Opportunities*.

Performance Standards – English Language Arts:

Implements a language arts curriculum that fosters interest and growth in all aspects of oral and written literacy in order to provide students with the communication skills necessary to understand and influence their own lives and to learn about the world. Specifically, the educator:

Literacy Development through Literature and Media—

Uses a wide variety of fiction and non-fiction textual materials, including some of students' own selection, to increase students' motivation to read independently for information, pleasure and personal growth

Selects and reads quality literature aloud and applies tools of literary analysis to the facilitation of discussions of central themes and ideas within literature

Employs a range of instructional strategies to support emergent and early literacy

Uses active instructional strategies to promote various dimensions of oral language development, and to facilitate critical analysis and interpretation

5440-00 Elementary Education (Cont'd)

Teaches students to distinguish between fact, opinion, and interpretation, and how to analyze and judge the credibility of print and non-print communications

Implements strategies to include parents as partners in the literacy development of their children

Models and teaches the elements of effective verbal and non-verbal communication

Language and Word Study –

Uses a variety of explicit and interactive approaches to teach key aspects of word study such as phonemic awareness, print concepts, and decoding

Teaches students to use syntactic, semantic, and graphophonemic cues to identify and spell words

Employs effective instructional strategies for the development of a broad vocabulary

Reading Comprehension and Fluency –

Provides explicit instruction in how to flexibly use pre-, during, and post-reading cognitive strategies to understand, analyze, and interpret a variety of types of texts

Employs a range of instructional approaches to support comprehension across the content areas

Uses instructional strategies to build or strengthen fluency

Written Expression –

Provides multiple opportunities for beginning writers to learn and practice that print carries meaning (e.g., by demonstrating for children the connections between their illustrations and words), to use writing purposefully, and to explore sound-symbol relations

Organizes and implements a writing portfolio program that promotes high quality writing by including a variety of instructional strategies and topics to teach purposes, structures, and composition

Uses required writing rubrics and benchmarks for assessing student writing and teaches students to use these to analyze their own writing

Models and teaches appropriate grammar, usage, and mechanics

Implements strategies to build fluency, accuracy, and automaticity in handwriting to support composition

Assessment and Adaptation of Literacy Instruction –

Uses a variety of valid assessment strategies (including records of oral reading) to regularly evaluate students' progress in all of the individual dimensions of literacy development

Uses the results of literacy assessments to adjust and/or target instruction, to flexibly group students, when needed, and to appropriately match students with reading material

5440-00 Elementary Education (Cont'd)

Performance Standards – Mathematics, History and the Social Sciences, and Science:

Implements mathematics, history/social sciences, and science curricula that integrate skills and content and enable conceptual development and development of the habits of mind that support inquiry within each discipline. Specifically, the educator:

Mathematics

Anticipates, elicits, and corrects typical misconceptions in mathematical reasoning

Models the habits of mind of flexibility and perseverance that support mathematical learning

Employs a range of instructional activities and resource materials to support the development of early numeracy concepts, and to reveal the application of mathematics to everyday life

Designs and incorporates mathematical tasks/activities that capitalize upon children's intuitive insights and language and that enable students to investigate, explore, and discover structures and relationships; create and use mathematical models; apply informal strategies to solve mathematical problems; formulate and solve problems individually and collaboratively; and justify and communicate their conclusions orally and in writing

Communicates mathematical ideas using appropriate mathematical language and representations, and teaches students to use both to communicate about mathematical ideas

Uses required mathematics scoring guides and benchmarks to evaluate student work and teaches students to use both to evaluate their own work

Integrates appropriate manipulatives and technological tools to facilitate mathematical problem solving and communication

History and the Social Sciences

Models how historians, geographers, and other social scientists view, analyze, and interpret the world

Incorporates activities that enable children to make connections between themselves and the larger world, including sharing and experiencing different cultures and traditions, and exploring the relationship between people and their environments

Designs and implements activities that use children's own stories as a way to introduce the chronological thinking essential to historical thinking

Provides opportunities for students to examine and interpret historical and contemporary events and issues through active learning strategies such as research, role-play, debate, and discussion

Provides opportunities for students to participate in community-based investigations and service projects, and to access and use local historical resources

Creates or adopts instructional and assessment tasks that teach students to analyze and interpret primary and secondary sources, identify webs of cause and effect, and differentiate between fact, opinion, and interpretation

5440-00 Elementary Education (Cont'd)

Provides opportunities for students to use historical, geographical, and social science research methods, tools, and technologies

Science

Anticipates and elicits the naïve scientific ideas, emerging concepts, and/or misconceptions that students are likely to have prior to instruction

Models the skills and habits of mind inherent in scientific inquiry

Provides opportunities for students to raise questions, become aware of the scientific nature of their questions, and to investigate their questions using the scientific method

Designs a variety of activities that allow students to build on their own intuitive explanations of how things work as they acquire more sophisticated scientific understandings

Creates opportunities for students to collaboratively design and implement scientific investigations, and to present and discuss the results of their investigations

Conducts investigations according to safe scientific procedures

Integrates mathematical, scientific, and technological tools appropriate to students' ages and abilities in order to facilitate scientific inquiry

Conveys to students how the development of scientific and mathematical theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of "old" knowledge

Demonstrates sensitivity to inequities in science and mathematics teaching and careers by incorporating specific instructional strategies that promote equity

Additional Requirements:

A minimum of a practicum, or the equivalent, in elementary education at both the primary (K-3) and upper elementary (4-6) instructional levels is required.

¹ e.g., *Standards for Reading Professionals* (International Reading Association, 1998); *Every Child Reading: A Professional Development Guide* (Learning First Alliance, 2000); *Standards for the English Language Arts* (International Reading Association/National Council of Teachers of English, 1996)

² e.g. *The Mathematical Education of Teachers* (Conference Board of the Mathematical Sciences, 2001), *Principles and Standards for School Mathematics* (National Council of Teachers of Mathematics, 2000)

³ e.g., *National Standards for History* (National Center for History in the Schools, 1996), *Curriculum Standards for Social Studies* (National Council for the Social Studies, 1994), *Geography for Life* (National Geographic Research & Exploration, 1994)

⁴ e.g. *National Science Education Standards* (National Academy of Sciences, 1996), *Benchmarks for Science Literacy* (Oxford University Press, 1993)

5440-05 English

The holder is authorized to teach English language arts in grades 7-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of research-based principles and processes underlying literacy development, and the components of effective literacy instruction, as delineated in current national professional standards¹ and reflected in *Vermont's Framework of Standards and Learning Opportunities*. Specifically, the educator understands and/or knows:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the impact of physical, emotional, and cultural factors on language development and acquisition of reading and writing; role of metacognition in reading, writing, listening, speaking, and representing visually; the elements of effective verbal and non-verbal communication

Literature and Media – A wide variety of quality, age-appropriate literature and non-print media (i.e., film, video) across genres, eras, cultures, and subcultures; literary elements and devices; critical theories and approaches to analysis and interpretation of literature and non-print media (e.g., historical, deconstructionist, New Criticism)

Language and Word Study – The purposes of language and approaches to analyzing language; etymology of the English language; the pronunciation of English phonemes and their graphemes; vocabulary development and its relationship to literacy acquisition

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency

Written Expression – The composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios and benchmarks and standards for various age/grade levels

Assessment and Adaptation of Literacy Instruction – The importance of individualizing the literacy program to address the needs and strengths of learners; a variety of valid and efficient language arts assessments appropriate for different purposes; the observable characteristics of a variety of reading and writing difficulties; strategies for modifying literacy instruction to support the needs of individual learners, including English Language Learners (ELL's)

5440-05 English (Cont'd)

Performance Standards:

Implements a language arts curriculum that fosters interest and growth in all aspects of oral and written literacy in order to provide students with the communication skills necessary to understand and influence their own lives and to learn about the world, including exploring personal identity and social relationships, making ethical judgments, and critically evaluating ideas. Specifically, the educator:

Literacy Development through Literature and Media –

Uses a wide variety of fiction and non-fiction textual materials, including some of students' own selection, to increase students' motivation to read independently for information, pleasure and personal growth

Selects and reads quality literature aloud and applies tools of literary analysis to the facilitation of discussions of central themes and ideas within literature and non-print media

Uses active instructional strategies (e.g., debate, dramatization, presentation) to promote various dimensions of oral language development, and to facilitate critical analysis and interpretation

Teaches students to distinguish between fact, opinion, and interpretation, and how to analyze and judge the credibility of print and non-print communications

Models, fosters, and teaches active listening in order to enable thoughtful, equitable, and respectful classroom discourse

Models and teaches the elements of effective verbal and non-verbal communication

Language and Word Study –

Teaches students to use syntactic, semantic, and graphophonemic cues to identify and spell words

Employs effective instructional strategies for the development of a broad, independent vocabulary

Reading Comprehension and Fluency –

Provides explicit instruction in how to flexibly use pre-, during, and post-reading cognitive strategies to understand, analyze, and interpret a variety of types of texts

Employs a range of instructional approaches to support comprehension across the content areas

Uses instructional strategies to build or strengthen fluency

Written Expression –

Organizes and implements a writing portfolio program that promotes high quality writing by including a variety of instructional strategies and topics to teach purposes, structures, and composition

Uses required writing rubrics and benchmarks for assessing student writing, and teaches students to use these to analyze their own writing

5440-05 English (Cont'd)

Models and teaches appropriate grammar, usage, and mechanics

Assessment and Adaptation of Literacy Instruction –

Uses a variety of valid assessment strategies to regularly evaluate students' progress in all of the individual dimensions of reading and writing development

Uses the results of literacy assessments to adjust and/or target instruction, to flexibly group students, when needed, and to appropriately match students with reading material

Additional Requirements:

A major in English or Comparative Literature, or the equivalent in undergraduate and/or graduate coursework.

A minimum of a practicum, or the equivalent, at the middle/secondary level (7-12) in science, social studies, math, or English.

^{1..} e.g., *Standards for Reading Professionals* (1998, International Reading Association); *Every Child Reading: A Professional Development Guide* (2000, Learning First Alliance); *Standards for the English Language Arts* (1996, International Reading Association/National Council of Teachers of English)

5440-40 English as a Second Language (ESL)

The holder is authorized to provide instruction in English language development to English Language Learners (ELL's) and to support the learning of ELL students in all content areas through collaboration with teachers, administrators, and parents. The holder is authorized to teach grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of the field of English as a second language, including language learning processes, teaching skills, and program planning processes and issues as follows:

Linguistics/Language Acquisition: The linguistic structures of the English language (phonology, morphology, syntax, lexicon and discourse) and their relationship to academic language and content learning; current theories of first and second language acquisition across different age and developmental levels and diverse cultural groups; theories of literacy development and the relationship of oral language development to reading and writing development; sociolinguistic competence; distinctions between language learning issues and learning disabilities

Linguistic/Cultural Diversity: How culture and the acculturation process impact students' perceptions, learning styles, and affective needs; the history and contributions of various cultural and ethnic groups in the U.S.; the origins and nature of cultural bias and stereotyping

Assessment: Appropriate procedures and processes for identification, screening, assessment, and monitoring of ELL students' English language proficiency and content area skills and progress

Methodology and Curriculum Development: A variety of instructional approaches, methods, and techniques for teaching the listening, speaking, reading, writing and cognitive skills (i.e., sociocultural skills, conversational English, academic language proficiency) that are required for meaningful participation in grade-level appropriate classes and adaptation to the American educational setting

Program Planning, Consultation, and Coordination: Federal and state legal requirements and guidelines relevant to the education of ELL students; the history, philosophy, and practice of various ESL program models

Performance Standards:

Implements an ESL curriculum that is based on current national professional standards¹, appropriately and accurately identifies students in need of ESL services, integrates the teaching of language learning and “academic” skills and content, and assists other staff in meeting the language learning and acculturation needs of ELL students within their classes and within the school, in order to maximize the learning opportunities of all ELL students. Specifically, the educator:

Linguistics/Language Acquisition:

Applies theories of first and second language acquisition to the design of developmentally appropriate curriculum and instruction for ELL students

5440-40 English as a Second Language (ESL) (Cont'd)

Linguistic/Cultural Diversity:

Works with other instructional staff to identify and address prejudice and cultural bias in teaching materials, school environments, or school practices

Takes active measures to involve linguistically and culturally diverse parents in their children's schooling.

Assessment:

Implements appropriate federal and state procedures for identification, screening, assessment, placement, and monitoring of ELL students' progress

Selects, administers, and interprets developmentally and culturally appropriate instruments and activities for regular assessment of students' English language proficiency and content area skills, and uses the results of these assessments to target ESL instruction for individual students

Follows appropriate procedures for using interpreters/translators to assess students' native language and content area skills

Methodology and Curriculum Development:

Selects and implements specific instructional approaches, methods, or techniques for teaching listening, speaking, reading, writing and cognitive skills that are appropriate to students' age and developmental levels, language proficiency levels, and cultural and experiential backgrounds

Selects or adapts instructional materials and curricula in order to integrate language learning objectives and strategies with content-area learning objectives

Uses grouping strategies (e.g., whole-class, individualized instruction, pair work, cooperative learning groups, and small-group instruction) appropriate to particular language learning instructional objectives

Program Planning, Consultation, and Coordination:

Provides guidance to classroom teachers on how to integrate ELL students socially and academically, how to adapt their instruction and materials to support language learning objectives, and how to assess their ELL students' content-area progress

Collaborates with other instructional staff, support staff, interpreters/translators, and parents to plan and implement educational programs for ELL students and to ensure that ELL students have full access to the school program

Additional Requirements:

A minimum of a practicum, or the equivalent, in English as a Second Language at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in English as a Second Language at **both** the PK-6 and 7-12 instructional levels is required.

¹. e.g., *ESL Standards for Pre-K – 12 Students* (1997, TESOL, Inc.)

5440-31 Health Education

The holder is authorized to teach health education in grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of health and health education concepts and skills delineated in current national professional standards¹, in *Health Education Guidelines for Curriculum and Assessment*², and in *Vermont's Framework of Standards and Learning Opportunities*.

Human development, including the typical progression of early childhood through adult growth and development within each domain and age appropriate indicators of intellectual, physical, social and emotional health for each stage of development

Anatomy and physiology

Historical, philosophical, and theoretical frameworks associated with health education, including learning theory as it applies to health behavior

Knowledge of the specific content areas of health education as defined in 16 VSA 131 and the Centers for Disease Control priority risk behaviors:

- Personal health concepts, including social, mental, emotional, and physical health maintenance
- Nutrition and Physical Activity
- Disease, Violence, and Injury Prevention
- Alcohol, tobacco, and other drugs
- Family health and comprehensive sexuality education
- Community and consumer health, which includes media literacy, advocacy, and accessing valid health information, products, and services

Purposes, elements, and requirements of the CSHP (Coordinated School Health Program) model

Vermont's Framework of Standards and Learning Opportunities, including especially the Vital Results for personal development

Essential health skills, including decision-making, interpersonal communication, goal setting and self-management, integrated across health content areas

Assessment

Appropriate use and interpretation of a variety of formal and informal assessment techniques and strategies in health education to improve student learning, classroom instruction, and program effectiveness

5440-31 Health Education (Cont'd)

Performance Standards:

Implements a comprehensive, standards-based health education curriculum that enables students to acquire the knowledge, skills, and attitudes that promote lifelong wellness and healthy choice making. Specifically, the educator:

Planning and Instruction

Develops and/or adopts health curriculum and assessments that are age appropriate, standards-based, and derived from research on learning and human behavior

Delivers content through participatory, skills-based learning activities that promote development of essential health skills

Creates a classroom climate that promotes respect for self and others, including psychological and emotional safety, as well as respect for privacy and confidentiality

Evaluates and applies research concerning best practices in health education

Assessment

Selects, designs, and uses a variety of standards-based assessment techniques to assess student understanding and performance, provide feedback, communicate student progress, and improve instruction

Collaboration

Collaborates with colleagues, families, and community within a Coordinated School Health Program to improve academic achievement and quality of life through health literacy and positive health behaviors

Additional Requirements:

A minimum of a practicum, or the equivalent, in health education at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in health education at **both** the PK-6 and 7-12 instructional levels is required.

¹. *National Health Education Standards: Achieving Health Literacy* (1998, American Cancer Society, Inc.)

². **Vermont Health Education Guidelines for Curriculum and Assessment** (2002, Vermont Department of Education)

5440-61 Library Media Specialist

The holder is authorized to provide library media services and instruction in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of library media concepts, skills, and processes delineated in current national professional standards accepted by the American Association of School Librarians and the Association for Educational Communications and Technology¹ including:

Professional principles including intellectual freedom, equity of intellectual and physical access, copyright, and other ethical and legal tenets of librarianship

The research and information literacy processes as defined in *Vermont's Framework of Standards and Learning Opportunities* and current national professional standards

Accepted standard library practices and procedures for evaluating, acquiring, organizing, circulating, and deaccessioning collections; responding to information requests; and other professional responsibilities

The principles and processes of written, visual, and spoken literacy, including the development of reading, writing, listening, expression, and other forms of communication skills

A rich variety of children's, young adult, and adult classic and contemporary literature and non-print media (i.e., film, video); detailed knowledge of genres (e.g., fiction, including myths and folklore, non-fiction, drama, and poetry), eras, cultures, and subcultures within literature

Performance Standards:

Plans, implements, administers, and evaluates an integrated library media program that is based on current national professional standards and that supports student attainment of Vermont's Field of Knowledge and Vital Results standards in all content areas. Specifically, the educator:

Develops, acquires, organizes, and maintains a balanced, diverse collection of print and non-print resources to meet the needs of the educational community, using standard library procedures

Develops and maintains policies and procedures related to the operation of the school library media center, including selection, reconsideration, circulation, and management of resources

Designs and implements, and collaborates with other staff to design and implement, standards-based curriculum that supports student attainment of Vermont's Communication Standards in all content areas

Chooses and maintains automated circulation and catalog systems and organizes the collection using standard cataloging procedures

Evaluates, selects, uses, and teaches students and other staff to use current and emerging school library media information technology resources, including catalog, circulation, reference, production, and other services and systems

Trains and supervises other library media center staff and volunteers

5440-61 Library Media Specialist (Cont'd)

Establishes and maintains a public relations/information program geared to both the school and its surrounding community which develops awareness of, interest in, participation in, and commitment to library-media services and programs

Additional Requirements:

A minimum of 18 credits in library and information science.

A minimum of a practicum, or the equivalent, in school library media services and instruction.

¹. e.g., *Information Power: Building Partnerships for Learning* (1998, American Library Association)

5440-11 Mathematics

The holder is authorized to teach mathematics in grades 7-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of mathematical content, concepts, and skills delineated in current national professional standards¹ and in *Vermont's Framework of Standards and Learning Opportunities* including:

National Council of Teachers of Mathematics (NCTM) process skills as vehicles for acquiring and using mathematics content knowledge

Typical misconceptions in mathematical reasoning held by early to late adolescents

Specific content recommended for middle grades and high school teachers in *The Mathematical Education of Teachers* (2001, Conference Board of the Mathematical Sciences) including:

Algebra and Number Theory – Properties of natural numbers and integers, as well as complex number systems; ways that basic ideas of number theory and algebraic structures underlie rules for operations on expressions, equations, and inequalities; use of algebra to model and reason about real-world situations; use of algebraic reasoning for problem solving and proof in number theory, geometry, discrete mathematics, and statistics

Geometry and Trigonometry – Core concepts and principles of geometry in the plane and in space using Euclidean geometry along with Cartesian coordinate and vector methods, and applications to transformations and problem solving; trigonometry from geometric and graphical perspectives, and applications to problem solving

Functions and Analysis – Equations and formulas associated with each important class of functions and the way that parameters in these representations determine particular cases; logarithmic functions; how to use functions to solve problems in calculus, linear algebra, geometry, statistics, and discrete mathematics

Data Analysis, Statistics, and Probability – Use of surveys to estimate population characteristics, and design of experiments to test conjectured relationships among variables; use of both theory and simulations to study probability distributions, and applications of both theory and simulation in models of real phenomena; conditional probability and independence, and calculation of probabilities associated with these concepts; performance of formal hypothesis tests while applying appropriate statistical testing

Discrete Mathematics and Computer Science – Graphs, trees, and networks; enumerative combinatorics; iteration and recursion; conceptual underpinnings of computer science

5440-11 Mathematics (Cont'd)

Performance Standards:

Implements a mathematics curriculum that integrates mathematical inquiry skills and mathematical content, and enables conceptual development and development of the habits of mind that support mathematical inquiry. Specifically, the educator:

Anticipates, elicits, and corrects typical errors and misconceptions in mathematical reasoning through the planning and execution of lessons

Models the habits of mind of flexibility and perseverance that support mathematical learning

Designs and incorporates mathematical tasks/activities that enable students to investigate, explore, and discover structures and relationships; solidify basic mathematical skills; extend and generalize mathematical concepts; create and use mathematical models; apply concrete, formal, and informal strategies to solve mathematical problems; formulate and solve problems individually and collaboratively; and justify and communicate their conclusions orally and in writing

Conveys the real world applications of mathematical ideas, and the interconnections among mathematical ideas and between mathematics and other disciplines

Communicates mathematical ideas using appropriate mathematical language and mathematical representations, and teaches students to use both to communicate about mathematical ideas

Uses required mathematics scoring guides and benchmarks to evaluate student work and teaches students to use both to evaluate their own work

Provides opportunities for students to use appropriate technological tools to explore algebraic ideas and representations of information, study individual functions and classes of related functions, conduct geometric investigations, and solve problems

Conveys to students how the development of mathematical theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of “old” knowledge

Conveys to students the roles and responsibilities of mathematicians with respect to social, economic, cultural, and political systems, and provides them with opportunities to actively explore the full scope of career choices available to people in mathematics

Demonstrates sensitivity to inequities in mathematics teaching and careers by incorporating specific instructional strategies that promote equity

Additional Requirements:

A major in mathematics, or the equivalent in undergraduate and/or graduate coursework in mathematics

A minimum of a practicum, or the equivalent, at the middle/secondary level (7-12) in science, social studies, math, or English.

¹ e.g. *The Mathematical Education of Teachers* (2001, Conference Board of the Mathematical Sciences), *Principles and Standards for School Mathematics* (2000, National Council of Teachers of Mathematics)

5440-19 Middle Grades

The holder is authorized to teach one or more of the following content areas – Science, History/Social Sciences, English Language Arts, Mathematics – in grades 5-9, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate that he/she meets the knowledge and performance standards for professional knowledge of middle grades education as well as the knowledge and performance standards for one or more of the core content areas of the middle grades curriculum as follows:

Knowledge Standards – Professional Knowledge:

Demonstrates a thorough understanding of the developmental nature and needs of early adolescents, and of ways to structure the learning environment and organize, implement, and assess curriculum and instruction to maximize students' learning and development. Specifically the educator understands:

The intellectual, physical, social, emotional, and psychological changes that occur during early adolescence, including the wide variation in how students learn and typically develop, and the variety of economic, social, and cultural influences that affect each student's life

How to work cooperatively and respectfully with all families to support students' learning and development

Organizational techniques that support early adolescents' developmental needs for close, trusting relationships between adults and students, and among students

Curricular design and instructional techniques that engage the unique intellectual and psychosocial nature and needs of early adolescent students

Embedded literacy strategies that promote the reading and writing skill development of all students across the content areas

Performance Standards – Professional Knowledge:

Middle Grades educators draw upon their understanding of early adolescent development and learning theory; the interests and needs of their students; and their knowledge of subject matter, integrative curriculum, and assessment to design and implement learning experiences that enable students to confront, explore, and understand challenging concepts and issues and improve skills in purposeful and engaging ways. Specifically, the educator:

Uses proactive, collaborative strategies to promote parent-teacher and parent-student communication about student learning and to enhance parent-students relationships

Provides an appropriate learning environment that meets the developmental needs of early adolescents in the areas of identity, intimacy, autonomy, and affiliation

Designs and implements curricula that are personally and socially relevant, that incorporate real world topics, and that are based upon integrative themes that bring to bear the habits of mind and dispositions of various disciplines

Collaborates with other teachers to integrate themes, skills, and content from multiple disciplinary areas within the classroom curriculum

5440-19 Middle Grades (Cont'd)

Implements curriculum using a variety of instructional strategies to ensure that all students learn the central concepts within the disciplines, are engaged in active learning, and to promote individual development and social cooperation

Incorporates embedded literacy strategies throughout all instruction

Uses assessment strategies and methodologies that require students to take increasing responsibility for understanding themselves as learners, evaluating their own work, and setting their own learning goals

Additional Requirements:

A minimum of a practicum, or the equivalent, at the middle grades level (5-9) in science, social studies, math, or English.

Knowledge Standards – English Language Arts:

Demonstrates knowledge of research-based principles and processes underlying literacy development, and the components of effective literacy instruction, as delineated in current national professional standards¹ and reflected in *Vermont's Framework of Standards and Learning Opportunities*. Specifically, the educator understands and/or knows:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the impact of physical, emotional, and cultural factors on language development and acquisition of reading and writing; role of metacognition in language and literacy development; the elements of effective verbal and non-verbal communication

Literature and Media – A wide variety of quality, age-appropriate literature and non-print media (i.e., film, video) across genres, eras, cultures, and subcultures; literary elements and strategies for textual analysis

Language and Word Study – The purposes of language and approaches to analyzing language; etymology of the English language; the pronunciation of English phonemes and their graphemes; the developmental progression of phonological awareness; vocabulary development and its relationship to literacy acquisition; the developmental stages of spelling and morphological analysis

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency

Written Expression – The composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios and benchmarks and standards for various age/grade levels

Assessment and Adaptation of Literacy Instruction – The importance of individualizing the literacy program to address the needs and strengths of learners; a variety of valid and efficient language arts

¹ e.g., *Standards for Reading Professionals* (International Reading Association, 1998); *Every Child Reading: A Professional Development Guide* (Learning First Alliance, 2000); *Standards for the English Language Arts* (International Reading Association/National Council of Teachers of English, 1996)

5440-19 Middle Grades (Cont'd)

assessments appropriate for different purposes; the observable characteristics of a variety of reading and writing difficulties; strategies for modifying literacy instruction to support the needs of individual learners, including English Language Learners (ELL's)

Performance Standards – English Language Arts:

Implements a language arts curriculum that fosters interest and growth in all aspects of oral and written literacy in order to provide students with the communication skills necessary to understand and influence their own lives and to learn about the world. Specifically, the educator:

Literacy Development through Literature and Media –

Uses a wide variety of fiction and non-fiction textual materials, including some of students' own selection, to increase students' motivation to read independently for information, pleasure and personal growth

Selects and reads quality literature aloud and applies tools of literary analysis to the facilitation of discussions of central themes and ideas within literature and non-print media

Uses active instructional strategies to promote various dimensions of oral language development, and to facilitate critical analysis and interpretation

Teaches students to distinguish between fact, opinion, and interpretation, and how to analyze and judge the credibility of print and non-print communications

Models, fosters, and teaches active listening in order to enable thoughtful, equitable, and respectful classroom discourse

Implements strategies to include parents as partners in the literacy development of their children

Models and teaches the elements of effective verbal and non-verbal communication

Language and Word Study –

Teaches students to use syntactic, semantic, and graphophonemic cues to identify and spell words

Employs effective instructional strategies for the development of a broad, independent vocabulary

Reading Comprehension and Fluency –

Provides explicit instruction in how to flexibly use pre-, during, and post-reading cognitive strategies to understand, analyze, and interpret a variety of types of texts

Employs a range of instructional approaches to support comprehension across the content areas

Uses instructional strategies to build or strengthen fluency

Written Expression –

Organizes and implements a writing portfolio program that promotes high quality writing by including a variety of instructional strategies and topics to teach purposes, structures, and composition

5440-19 Middle Grades (Cont'd)

Uses required writing rubrics and benchmarks for assessing student writing, and teaches students to use these to analyze their own writing

Models and teaches appropriate grammar, usage, and mechanics

Assessment and Adaptation of Literacy Instruction –

Uses a variety of valid assessment strategies to regularly evaluate students' progress in all of the individual dimensions of literacy development

Uses the results of literacy assessments to adjust and/or target instruction, to flexibly group students, when needed, and to appropriately match students with reading material

Additional Requirements:

A minor in English or Comparative Literature, or the equivalent in undergraduate and/or graduate coursework

Knowledge Standards – Mathematics:

Demonstrates knowledge of mathematical content, concepts, and skills delineated in current national professional standards² and in *Vermont's Framework of Standards and Learning Opportunities* including:

National Council of Teachers of Mathematics (NCTM) process skills as vehicles for acquiring and using mathematics content knowledge

Typical misconceptions in mathematical reasoning held by early adolescent students

Specific content recommended for middle grades teachers in *The Mathematical Education of Teachers* (Conference Board of the Mathematical Sciences, 2001) including:

Numbers and Operations – Mathematics underlying the procedures used for operating on whole numbers and rational numbers; distinctions among whole numbers, integers, rational numbers, and real numbers; conversion among fractions, decimals, and percents; number and operation properties, including mental computation and computational estimation; fundamental ideas of number theory; scientific notation; use of ratios and proportions to represent qualitative relationships; inverse relationships; equations and inequalities

Algebra and Functions – Algebra as a symbolic language, as a problem solving tool, as generalized arithmetic and generalized quantitative reasoning, and as a way of modeling physical situations; variables and functions and how they can be represented; linear functions as a way of representing proportional relationships; patterns of change associated with linear, quadratic, and exponential functions; translation of information from one representation to another

² e.g. *The Mathematical Education of Teachers* (Conference Board of the Mathematical Sciences, 2001), *Principles and Standards for School Mathematics* (NCTM, 2000)

5440-19 Middle Grades (Cont'd)

Geometry and Measurement – Justification or disproof of conjectures about geometric shapes; derivation of measurement formulas; how rigid motions in the plane result in congruent figures; how similar figures result from a dilation, and the role of proportional relationships in determining similarity; connection of geometry to other topics and contexts such as nature and art; analysis and generalization of geometric patterns; conceptual underpinnings of calculus

Data Analysis, Statistics, and Probability – Prediction of patterns, through theory and simulation, within simple probability models; drawing of conclusions with measures of uncertainty by applying basic concepts of statistics; applications of statistics and probability across different fields; use of technology effectively in statistical practice, including determination of which technology is appropriate for a particular problem

Performance Standards – Mathematics:

Implements a mathematics curriculum that integrates mathematical inquiry skills and mathematical content, and enables conceptual development and development of the habits of mind that support mathematical inquiry. Specifically, the educator:

Anticipates, elicits, and corrects typical errors and misconceptions in mathematical reasoning

Models the habits of mind of flexibility and perseverance that support mathematical learning

Designs and incorporates mathematical tasks/activities that enable students to investigate, explore, and discover structures and relationships; solidify basic mathematical skills; extend and generalize mathematical concepts; create and use mathematical models; apply concrete, formal, and informal strategies to solve mathematical problems; formulate and solve problems individually and collaboratively; and justify and communicate their conclusions orally and in writing

Conveys the real world applications of mathematical ideas, and the interconnections among mathematical ideas and between mathematics and other disciplines

Communicates mathematical ideas using appropriate mathematical language and representations, and teaches students to use both to communicate about mathematical ideas

Uses required mathematics scoring guides and benchmarks to evaluate student work and teaches students to use both to evaluate their own work

Integrates appropriate manipulatives and technological tools to facilitate mathematical problem solving and communication

Conveys to students how the development of mathematical theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of “old” knowledge

Conveys to students the roles and responsibilities of mathematicians with respect to social, economic, cultural, and political systems, and provides them with opportunities to actively explore the full scope of career choices available to people in mathematics

Demonstrates sensitivity to inequities in mathematics teaching and careers by incorporating specific instructional strategies that promote equity

5440-19 Middle Grades (Cont'd)

Additional Requirements:

A minor in mathematics, or the equivalent in undergraduate and/or graduate coursework

Knowledge Standards – History and Social Sciences:

Demonstrates knowledge of historical and social science content, concepts, and skills delineated in current national professional standards³ and in Vermont's Framework of Standards and Learning Opportunities including:

Methods of historical and social science investigation and analysis, including criteria for critical evaluation of evidence and data, and use of primary sources and varied perspectives to interpret historical events and analyze public issues

The development of students' historical thinking , including common misconceptions in the historical thinking of students

History – Multiple perspectives on significant eras, developments, and turning points in ancient and modern history; causes and effects in human society; forces of historical and cultural continuity and change

Cultural Geography – An understanding of the world in spatial terms, the physical and human characteristics of places and regions, human systems, the interaction of environment and society

Diversity, Unity, Identity, and Interdependence – Culture, including cultural identity, expressions, and universals; the origins of conflict; consequences of discrimination, stereotyping, and prejudice on individuals and groups

Citizenship – Forms of government and their underlying concepts; principles and responsibilities of democratic citizenship; principles of American federalism; origins and evolution of the concepts of equality, justice, freedom, human, and civil rights

Economics – Forms of economic systems; consequences of economic systems on people and environments

Performance Standards – History and the Social Sciences:

Implements a history and social sciences curriculum that integrates historical and social science content, concepts, and inquiry skills, and enables students to view and analyze communities, societies and/or cultures, and events as apprentice historians and social scientists, to interpret social issues, and to participate purposefully toward the common good in society. Specifically, the educator:

Chooses developmentally appropriate activities to teach historical/social science concepts and processes

Models how historians, geographers, and other social scientists view, analyze, and interpret the world

³ e.g., *National Standards for History* (National Center for History in the Schools, 1996), *Curriculum Standards for Social Studies* (National Council for the Social Studies, 1994), *Geography for Life* (National Geographic Research & Exploration, 1994)

5440-19 Middle Grades (Cont'd)

Provides opportunities for students to examine and interpret historical and contemporary events and issues through active learning strategies such as research, role-play, debate, and discussion

Provides opportunities for students to participate in community-based investigations and service projects, and to access and use local resources

Creates or adopts instructional and assessment tasks that teach students to analyze and interpret primary and secondary sources of all types, identify webs of cause and effect, and differentiate between fact, opinion, and interpretation

Provides opportunities for students to use historical, geographical, and social science research methods, tools, and technologies

Teaches students how to read and understand historical narratives, issue analyses, and persuasive essays, and how to write well-crafted pieces in these genres, including preparing portfolio pieces

Models respect for students' diverse opinions and backgrounds in all classroom interactions, and teaches students how to engage in civil discussions about controversial issues

Additional Requirements:

A minor in history, political science, economics, geography, or a combination thereof, or the equivalent in undergraduate and/or graduate coursework. (Coursework in cultural anthropology and non-Western area studies may be counted toward geography.)

Knowledge Standards – Science:

Demonstrates knowledge of scientific content, concepts, and skills delineated in current national professional standards⁴ and in *Vermont's Framework of Standards and Learning Opportunities* including:

Scientific method; investigatory processes and procedures; the nature of theory; roles and responsibilities of scientists; history of science

Typical scientific misconceptions or naïve ideas held by early adolescents

Life Sciences – Cell structure and function; anatomy and physiology; molecular basis of heredity; biological evolution; interdependence of organisms; matter, energy and organization in living systems; behavior of organisms

Physical Sciences – The structure of atoms; structure and properties of matter; chemical reactions; motion and forces; conservation of energy and increase in disorder; interactions of energy and matter

Earth, Environmental, and Atmospheric Sciences – The Earth as an integrated system of chemical, physical and biological processes interconnecting the geosphere, hydrosphere, atmosphere, and biosphere; the origins and evolution of the Earth, solar system, and universe, and forces effecting and shaping them over time

⁴ e.g. *National Science Education Standards* (National Academy of Sciences, 1996), *Benchmarks for Science Literacy* (Oxford University Press, 1993)

5440-19 Middle Grades (Cont'd)

Living and Non-Living Systems – The concept of living and non-living systems as collections of interrelated parts and interconnected systems; continuity and change in living and non-living systems from the micro to the macro scale; how personal and collective actions can affect the sustainability of interrelated systems

Performance Standards -- Science:

Implements a science curriculum that integrates scientific inquiry skills and science content, and enables conceptual development and development of the habits of mind that support scientific inquiry. Specifically, the educator:

Anticipates and elicits the naïve scientific ideas, emerging concepts, and/or misconceptions that students are likely to have prior to instruction

Models the skills and habits of mind inherent in scientific inquiry

Asks scientific questions that engage students and helps them to formulate meaningful scientific questions of their own

Designs and implements investigations and assessments that engage students in experimental design, data collection, data analysis, and problem solving, and that provide them with frequent interactions with the natural world as a regular part of the science program

Creates opportunities for students to collaboratively design and implement scientific investigations, and to present and discuss the results of their investigations

Organizes equipment, work, and learning spaces so that scientific investigations are carried out safely in accordance with state and national safety guidelines

Teaches forms of scientific communication including how to write clear, well-organized science reports; how to read sources of scientific information; and how to understand and use representation and scientific notation

Integrates physical, mathematical, scientific, and technological tools appropriate to students' ages and abilities in order to facilitate scientific inquiry

Conveys to students how the development of scientific theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of “old” knowledge

Conveys to students the roles and responsibilities of scientists with respect to social, economic, cultural and political systems, and provides them with opportunities to actively explore the full scope of career choices available to people in the sciences

Demonstrates sensitivity to inequities in science teaching and careers by incorporating specific instructional strategies that promote equity

Additional Requirements:

A minor in biology, chemistry, physics, or earth/environmental/atmospheric sciences, or a combination thereof, or the equivalent in undergraduate and/or graduate coursework

5440-06 Modern and Classical Languages

The holder is authorized to teach a modern (including American Sign Language) and/or classical language(s) in grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of foreign language and language education concepts and skills delineated in current national professional standards¹ and in Vermont's *Framework of Standards and Learning Opportunities* including:

Proficiency in speaking, reading, writing, and aural comprehension in the target language(s)

For American Sign Language:

Proficiency in receptive and expressive language

The structure, phonetic system, and different socio-linguistic levels of the target language(s)

For American Sign Language:

The application of concepts of phonology, syntax, morphology, and pragmatics to the teaching of American Sign Language

The practices, products, and perspectives of the target culture(s), including a broad general foundation in the arts, history, geography, economics, and literature of the target culture(s)

For American Sign Language:

Knowledge of the history, social structure, artistic, and literary contributions of the Deaf culture

The ability to interpret contemporary lifestyles, customs, and cultural patterns of the Deaf culture in American Sign Language-speaking regions

The individual and societal advantages of foreign language learning

The developmental process of second language acquisition at the early childhood/elementary and/or middle/secondary levels

Research-based instructional methods and strategies that develop foreign language communication skills as a process and articulate continuous sequences of instruction across the early childhood/elementary and/or middle/secondary instructional levels

Performance Standards:

Implements a foreign language curriculum that provides students with opportunities to achieve the cultural and linguistic outcomes specified in current national professional standards and in Vermont's *Framework of Standards and Learning Opportunities*. Specifically the educator:

Applies knowledge of research-based methods and strategies for teaching foreign languages and cultures to the design of developmentally appropriate learning activities for students with diverse learning styles, interests, and linguistic backgrounds

5440-06 Modern and Classical Languages (Cont'd)

Uses authentic documents and materials (such as music, art, food, literature, or newspapers) in order to develop students' understanding and appreciation of the target culture's history, geographical regions, values, and customs

Selects and incorporates instructional media appropriate to foreign language learning, including authentic print and electronic materials from the target culture

Focuses teaching on the development of cross-cultural and linguistic competence through critical thinking and communicative activities

Integrates classroom curricular themes with the foreign language curriculum (early childhood/elementary)

Advocates for all students to learn a foreign language and culture at the earliest possible age

Additional Requirements:

A major in a modern or classical language, or the equivalent in undergraduate and/or graduate coursework. (Native speakers and speakers of ASL are exempt from this requirement.)

A minimum of a practicum, or the equivalent, in modern and classical languages at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in modern and classical languages at both the PK-6 and 7-12 instructional levels is required.

¹ e.g., *Standards for Foreign Language Learning: Preparing for the 21st Century* (1999, National Standards in Foreign Language Education Project)

5440-12 Music

The holder is authorized to teach music in grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of music and music education concepts and skills delineated in current national professional standards¹ and in Vermont's *Framework of Standards and Learning Opportunities* including:

The processes and stages of children's and/or adolescents' musical and aesthetic development

The historical development and role of music in contemporary and past cultures

Music theory, including an understanding of composition, arranging, and improvising, as well as music as a fundamental expression of human emotion and form of communication

Philosophies and methods of music education (e.g., Dalcroze, Gordon, Kodaly, Orff, Suzuki)

Principles, purposes, and design of assessments in music, including the concepts of critical response and self-assessment

The five elements of music (i.e., melody, harmony, rhythm, tempo, and timbre) and the two elements of musical analysis (i.e., instrumentation and vocal analysis)

Sight-reading and sight-singing skills

Expertise in one or more of the following areas as demonstrated by public performance: vocal, instrumental, and/or music composition

Ability to perform simple accompaniments in a second performance area

Basic command of a range of wind, string, brass, and percussion instruments

Performance Standards:

Implements a music curriculum that enables students to experience the beauty, emotional intensity, and thoughtfulness of music through making, studying, interpreting, and evaluating music. Specifically, the educator:

Demonstrates comprehensive performance and musicianship skills and specialized knowledge in general, choral, or instrumental music, as they provide students with quality, sequential instruction in music

Applies effective techniques for conducting and rehearsing with small and large groups

Selects a developmentally appropriate music repertoire for study and performance

Creates an emotionally and physically safe environment where artistic risk-taking, self-exploration, collaboration, discovery, experimentation, problem solving, and reflection can take place

5440-12 Music (Cont'd)

Creates, selects, and adapts a variety of resources, materials, and technologies, that support students as they learn through and about music

Models the use of the vocabulary of music to describe and respond to musical works

Creates opportunities for students to learn tolerance and respect for others through instruction in multicultural music

Uses a variety of appropriate methods, including student self-assessment, to assess students' musical development, and uses assessment results to evaluate the effectiveness of one's teaching and curriculum

Adapts materials, tasks, etc. to ensure the full access of all students, including special needs students, to a rich music education

Integrates classroom curricular themes with the music curriculum (early childhood/elementary)

Advocates for a rich music education for all students at the earliest possible age

Additional Requirements:

A major in music, or the equivalent in undergraduate and/or graduate coursework.

A minimum of a practicum, or the equivalent, in music education at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in music education at both the PK-6 and 7-12 instructional levels is required.

¹. e.g., *National Standards for Arts Education* (1994, Music Educator's National Conference)

5440-08 Physical Education

The holder is authorized to teach physical education in grades PK-6, 7-12, or PK-12, as specified on the endorsement.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards

Demonstrates knowledge of physical education concepts and skills delineated in current national professional standards¹ and in personal development and skills in *Vermont's Framework of Standards and Learning Opportunities* including:

Foundations:

Human development, including the typical progression of early childhood through adult growth and development within each domain and age appropriate indicators of physical health and wellness for each stage of development

Biophysical and social-psychological concepts fundamental to skillful movement, physical activity, and physical fitness

Historical, philosophical, and sociological perspectives on all aspects of physical fitness education

The definition of a “physically educated person”

Skills and competence in a variety of physical and recreational activities

Equity, Fairness, and Diversity:

The effects of age, gender, socioeconomic status, and culture upon physical activity preferences and participation

Strategies for modifying instruction in order to be sensitive to students’ diverse physical abilities and skills, learning styles, and prior experiences

Common areas of exceptionality and techniques for assisting, adapting, and extending physical education learning experiences to meet the needs of all students

Curriculum, Planning and Instruction:

Selection, planning, and implementation of developmentally appropriate curriculum based on current social and cultural problems, national and state standards, and the community and its offerings and needs

Developmentally appropriate strategies for teaching movement concepts, skill development, and personal fitness

Principles of effective behavior management for a physical education setting

Effective verbal and non-verbal communication techniques to encourage and enhance student performance

5440-08 Physical Education (Cont'd)

The cross curricular links between and among the physical education curriculum and other subjects

Assessment:

The appropriate use and interpretation of a variety of formal and informal assessment techniques and strategies in physical education

Collaboration:

Community resources to enhance physical activity and wellness opportunities including specific resources for students with special needs

Performance Standards

Designs and implements a developmentally appropriate, standards-based curriculum that incorporates movement concepts, critical elements of motor skill acquisition and development; performance concepts and strategies related to skillful movement and physical activity; and strategies to help students develop responsible and healthy personal and social behaviors. Specifically, the physical educator:

Curriculum, Planning, and Instruction:

Designs and implements instruction that is sensitive to students' diverse physical abilities and skills, interests, learning styles, and experiences

Provides learning experiences that integrate knowledge and skills from multiple subject areas, encourage healthy risk-taking and collaborative and individual goal setting, and facilitate students' problem solving and critical thinking skills by asking questions and posing scenarios

Uses specific approaches to foster positive group interactions and emotional and psychological safety, including cooperative and team building activities

Organizes, allocates, and manages resources to provide active and equitable learning experiences

Develops an effective behavior management plan appropriate to a physical education setting

Organizes equipment, work, and learning spaces so that physical education activities are carried out safely in accordance with state and national safety guidelines

Adapts a variety of activities for special needs students

Assessment:

Uses a variety of appropriate authentic, traditional, and standards-based assessment techniques to assess student understanding and performance, provide feedback, and communicate student progress formatively and summatively

5440-08 Physical Education (Cont'd)

Collaboration:

Communicates to students, parents, staff, and the community the importance of lifelong physical activity in the development and wellness of individuals of all ages

Gathers information and identifies resources to support students with special needs

Collaborates with school personnel to ensure that the school environment and program are safe and promote the health of students and staff and to develop, support, implement, and evaluate a Coordinated School Health Program (CSHP)

Additional Requirements:

A minimum of a practicum, or the equivalent, in physical education at the elementary (PK-6) or middle/secondary (7-12) instructional level, depending on the authorization sought. For the full PK-12 authorization, a minimum of a practicum, or the equivalent, in physical education at both the PK-6 and 7-12 instructional levels is required.

¹. *National Standards for Beginning Physical Education Teachers* (1995, National Association for Sports and Physical Education) and *Moving Into the Future: National Physical Education Standards: A Guide to Content and Assessment* (1995, National Association for Sports and Physical Education)

5440-78 Reading/English Language Arts Coordinator

The holder is authorized to provide leadership in the implementation of reading instruction and assessment practices that are informed by research, including coordination and management of all aspects of the school or district's reading program and guidance of professional development in the area of reading, in order to help all students achieve standards.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

The Reading/English Language Arts Coordinator must be eligible to hold the Reading/English Language Arts Specialist endorsement. In addition, the Coordinator understands topics and concepts essential to systemic leadership of reading instruction and assessment as delineated in current national professional standards for reading professionals.¹

These topics and concepts include:

- Research design and program evaluation
- Principles and models of effective needs- and standards-based staff development programs
- Planning and administration of a program of reading instruction and assessment, including purposes of and eligibility criteria for the various federal and state supplemental and intervention programs designed to help students with reading and writing problems
- Federal, state, and local laws, regulations, and policies related to reading instruction and assessment

Performance Standards:

The Reading/English Language Arts Coordinator exhibits leadership in the implementation of reading instruction and assessment practices that are informed by research. Specifically, the educator:

Curriculum, Instruction, and Assessment:

Collaborates with teachers and administrators to develop and implement a school or district-wide program of literacy instruction and assessment that is research- and standards-based and aligned with other school and/or district improvement efforts

Selects materials, technologies, and tools to support the school's or district's literacy program

Implements literacy support programs to enhance literacy development throughout the school community

Communicates information about school- or district-wide literacy program and progress to administrators, other staff members, school-board members, parents, and the community, including delineating expectations for students and best practices in instruction and assessment at different grade levels

Budgeting:

Identifies and pursues local, state, and national funding sources, and plans and manages budgets, to support the literacy program

5440-78 Reading/English Language Arts Coordinator (Cont'd)

Professional Development:

Designs and implements an effective needs- and standards-based staff development program that is focused on the core areas of effective classroom pedagogy – content, context, methodology, and assessment

Research and Program Evaluation:

Develops and implements comprehensive program evaluation processes to evaluate student and staff progress toward the goals of the literacy instruction and assessment program

Collaborates with administrators and teachers to use program evaluation results to inform on-going curriculum, instruction, and assessment, and professional development planning

Obtains and interprets literacy research that includes a range of methodologies (e.g., ethnographic, descriptive, experimental, historical), and conducts and supports classroom-level research projects

Additional Requirements:

A master's degree, or the equivalent, in any area

A minimum of 21 credits in reading/English language arts

A minimum of a practicum, or the equivalent, in reading instruction and assessment

¹ *Standards for Reading Professionals* (1998, International Reading Association); *Every Child Reading: A Professional Development Guide* (2000, Learning First Alliance)

5440-76 Reading/English Language Arts Specialist

The holder is authorized to function as a school-wide resource to support teachers to implement reading instruction and assessment practices that are informed by research, and to provide instruction in reading to students in grades PK-12. This endorsement is limited to holders of endorsements in early childhood, elementary education, middle grades, the secondary content areas, or special education.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of major theories and research-based principles and processes underlying language and literacy development, the components of effective literacy instruction and assessment at the student and school levels, a variety of literacy difficulties and intervention strategies, and strategies for facilitating best practice school-wide, as delineated in current national professional standards¹. Specifically, the educator understands and/or knows:

FOUNDATIONS:

Reading Comprehension and Fluency

Reading as the complex cognitive process of constructing meaning through the interaction of the reader's existing knowledge, the information suggested by the text, and the context of the reading situation

Components of reading comprehension, including strategies, vocabulary, and background/conceptual knowledge; ways that readers demonstrate comprehension; the distinction among independent, instructional, and frustration levels for individual students

Components of fluency, and appropriate ranges of reading fluency rates at different grade levels

Individual and textual factors that influence comprehension

The particular features of narrative and expository text across genres; and how readers' awareness of these features supports comprehension

Development of early and emergent literacy, including "concepts of print"

Literature and Media

A wide variety of quality, age-appropriate literature across genres, eras, cultures, and subcultures, including texts that support a range of reading abilities (e.g., decodable texts, leveled books) and resources for selecting and reviewing new materials

Critical theories of children's literature

Literary elements and strategies for analysis of literature and non-textual media

Language Development

The phonemic, morphemic, semantic, syntactic, and pragmatic systems of language and their relationship to the reading and writing process

5440-76 Reading/English Language Arts Specialist (Cont'd)

Processes, principles, and dimensions of oral language acquisition and the relationship between oral language development and literacy development

Components of phonological processing

The development of the phonological skills essential to fluent decoding

The impact of physical, emotional, and cultural factors on language development and acquisition of reading and writing

Role of metacognition in reading, writing, listening, speaking, and representing visually

Elements of effective verbal and non-verbal communication

The process of second language acquisition, benefits and challenges second language acquisition poses to students' reading and writing development, and distinctions between language learning issues and learning disabilities

Word Study

Written language as a symbolic system based on the alphabet and orthography/spelling

The pronunciation of English phonemes and their graphemes

The developmental stages of spelling and morphological analysis

Speech to print correspondence at the sound, syllable pattern, and morphological levels, including predictability and patterns in English spelling, and grammatical endings and prefixes, suffixes, and roots

The differences among approaches to teaching phonics

Vocabulary development and its relationship to literacy acquisition

Relationships among phonology, decoding, orthography, fluency, vocabulary, and comprehension

Written Expression

The writing development continuum from pre-writers through adults

Dimensions of quality writing, types of writing, the composing processes that writers use, and planning strategies most appropriate for particular kinds of writing

The conventions of written English

Uses of writing portfolios and approaches to assessing student writing, including appropriate benchmarks and standards for various ages/grade levels

5440-76 Reading/English Language Arts Specialist (Cont'd)

INDIVIDUAL DIFFERENCES AND INDIVIDUALIZED INSTRUCTION:

The characteristics of and multiple causes of reading and writing difficulties, including how environmental/contextual and physiological/neurological factors can influence language, reading, and writing development

How contextual factors in the school can influence student learning and reading

A variety of individual and group instructional approaches, interventions, and supplemental programs to address specific difficulties in language, reading, and writing skills

ASSESSMENT:

Indicators of proficiency or difficulty in the various component areas of reading

Purposes for assessment in English language arts, including screening, diagnosis, evaluation of outcomes, guidance of instruction, and progress monitoring, and a range of valid and reliable assessment tools appropriate to each purpose

Ability to administer and interpret formal and informal assessments appropriate for different purposes

The importance of a feasible, comprehensive, and ongoing reading/language arts assessment program to evaluate student and school achievement of standards, and a variety of potential approaches to accomplish this

CONSULTATION AND COLLABORATION:

Principles and practices of effective collaboration and consultation in learning environments

Purposes of and eligibility criteria for various local supplemental and intervention programs designed to help students with reading and writing difficulties

Appropriate roles and responsibilities of paraeducators and their supervision

RESEARCH AND EVALUATION:

How to interpret, analyze, and apply research findings to instructional practice

Strategies for classroom-based literacy research

Appropriate criteria for determining the effectiveness of reading programs, including comprehensive programs, supplemental, and intervention programs

5440-76 Reading/English Language Arts Specialist (Cont'd)

Performance Standards:

The Reading/English Language Arts Specialist provides individualized and small group reading and writing support and instruction to students based upon their needs; collaborates with other educators to plan individualized programs for students with reading or writing disabilities; and assists with school-wide implementation of best practices in reading instruction and assessment, including selection of materials, application of research to practice, provision of professional development in the area of reading, and evaluation of the effectiveness of the school's literacy program. Specifically, the educator:

INDIVIDUALIZED INSTRUCTION:

Based on student needs, supports students both in and out of their regular classrooms by explicitly and systematically teaching one or more of the components of literacy

Uses a wide variety of teacher and student-selected texts, including authentic and extended texts, appropriate to individual students' reading levels, in order to increase students' skills, sense of self-efficacy as readers, and motivation to read

Appropriately selects from a variety of active and engaging individual and/or small group instructional approaches, supplementary programs, or interventions, and adjusts pace and degree of explicit instruction, in order to meet the needs of individual students

Uses remedial and tutorial programs which have been validated by research

ASSESSMENT:

Uses the results of literacy assessments to target instruction, to flexibly group students for small groups when needed, to appropriately match students with reading material, and to assess curriculum specific learning outcomes as they relate to the students learning and program effectiveness

Uses a range of progress monitoring tools to regularly evaluate individual students' progress, and adjusts approaches, interventions, and supplementary instruction, depending on student progress

CONSULTATION AND COLLABORATION:

Helps to develop individual educational plans for students with learning disabilities related to literacy

Implements and evaluates systemic strategies to include parents as partners in the literacy development of their children and adolescents

Collaborates with classroom teachers to support their implementation of research-based best practices in all aspects of literacy instruction and assessment, including modeling or co-teaching of specific instructional approaches, when appropriate; joint problem-solving; and/or assistance with the acquisition of resources

Facilitates the review and selection of instructional materials for literacy instruction, including those that are technology based

5440-76 Reading/English Language Arts Specialist (Cont'd)

RESEARCH AND EVALUATION:

Interprets research findings related to the improvement of reading instruction and assessment and communicates these findings to colleagues and the wider community, in order to improve classroom practice

Communicates information about school-wide literacy program and progress to administrators, other staff members, school-board members, parents, and the community

Assists with the program evaluation process to gauge the effectiveness of the school's literacy curriculum, using a variety of appropriate indicators of effectiveness

Facilitates and supports classroom-level research in literacy instruction

Additional Requirements:

A minimum of 18 credits in reading/English language arts.

A minimum of a practicum, or the equivalent, in reading instruction and assessment.

¹ e.g., *Standards for Reading Professionals* (1998, International Reading Association); *Every Child Reading: A Professional Development Guide* (2000, Learning First Alliance); *Standards for the English Language Arts* (1996, International Reading Association/National Council of Teachers of English)

5440-64 School Counselor

The holder is authorized to provide school counseling services in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of school counseling concepts and skills delineated in current national professional standards¹ and personal development concepts and skills reflected in *Vermont's Framework of Standards and Learning Opportunities*. Specifically, the school counselor understands:

Human Development:

Human development, including the typical progression of early childhood through adult growth and development within each domain and age appropriate indicators of social and emotional well being for each stage of development

Developmental Guidance:

Purposes and strategies for developmental guidance programs, including developmental theories, educational planning methods and processes, classroom management skills, group guidance approaches, conflict mediation and resolution strategies, and parent education strategies

Counseling:

Principles, theories, and techniques of individual, group, and family counseling, including how to modify counseling practices to accommodate students with special needs

The student as the primary client

Indicators of serious social and emotional issues related to healthy development (such as self mutilation, eating disorders, harassment, grief, trauma), including their impact on students, families, peers, schools, and community systems, and when and to whom to refer students and their families for more intensive interventions

Emergency crisis intervention services within and outside the school district

Career Exploration and Transitions to Post Secondary Education and Work:

Career development theories and practices, strategies for guiding students to explore career and lifestyle choices, and decision-making skills relative to education and work

Transition issues at various age levels

Changes in technology and the impact of these changes on learning and work

Range of college and post secondary training opportunities, and resources available to support students' choices

5440-64 School Counselor (Cont'd)

Professional Issues:

Professional and ethical issues in school counseling

Legal aspects of counseling and school law as they relate to counselors and the counselor's role within the educational system

Assessment:

Appropriate interpretation of a variety of educational and psychological assessment data

Consultation and Collaboration:

Schools as systems

Processes of social and cultural change with respect to various racial, gender and ethnic groups, and knowledge of and respect for differing cultural and lifestyle patterns, including an understanding of various forms of family relationships

How to work cooperatively and respectfully with all families to support students' learning and development

Principles and practices of effective collaboration and consultation in learning environments

Development, implementation, and evaluation of a comprehensive Pre-K to 12 program of school counseling services in collaboration with administrators, staff, parents, and other community members

The school counselor's roles and responsibilities relative to the development and implementation of educational plans for students

Purposes, elements, and requirements of the CSHP (Coordinated School Health Program)

Performance Standards:

School counselors strengthen and facilitate the educational process by providing developmental guidance instruction to enable all students to acquire the attitudes, knowledge, and skills that contribute to school success and healthy development; providing individual and/or group counseling to students in need; and collaborating with other school personnel to promote a healthy learning environment for students and staff. Specifically, the school counselor:

Developmental Guidance:

Designs, implements, and evaluates standards-based developmental guidance programs to help all students develop self understanding and personal competence, including the ability to make healthy and informed choices, to develop productive and satisfying relationships, and to resolve conflicts effectively

Counseling:

Identifies, in collaboration with teachers and parents, problems that may be interfering with the learning and healthy development of individual students and that may require counseling interventions

5440-64 School Counselor (Cont'd)

Facilitates the student's self-awareness, self-understanding, self-advocacy, and behavioral change, as they relate to school adjustment and performance

Coordinates with principal and superintendent in the development of an emergency crisis intervention plan which includes police, community, public safety, and emergency response personnel

Uses deescalation techniques with students in danger of hurting themselves and/or others

Provides short-term counseling to individuals and groups of students to assist them in dealing with personal, social, developmental, and educational issues

Career Exploration and Transitions to Post Secondary Education and Work:

Guides students in career and higher education exploration, decision-making, and planning

Assessment:

Assists students and parents to understand the results of psychological and educational assessments in order to support students in making effective personal, educational, social, and career decisions

Consultation and Collaboration:

Serves as a liaison between teachers, parents, support personnel, and community resources to facilitate successful student development

Participates on a variety of teams supporting individual students

Collaborates with school and community personnel to ensure that the school environment and program are safe and health promoting and to assist in the development, support, implementation, and evaluation of a Coordinated School Health Program (CSHP)

Works with all students and their families in ways that respect diverse backgrounds and interests

Makes referrals to other professionals, as appropriate

Additional Requirements:

Master's degree with a concentration in school counseling, or the equivalent.

A supervised internship experience (600 clock hours) in counseling with a minimum of 60 hours of experience in school counseling at **both** the elementary (PK-6) and middle/secondary (7-12) levels, under the supervision of a licensed school counselor.

¹. *National Standards for School Counseling Programs* (1996, American School Counseling Association) and *National Career Standards* (2002, National Board for Certified Counselors, Inc., and Affiliates).

5440-65 School Nurse

The holder is authorized to provide school health services in grades PK-12 and to collaborate with teachers and administrators to integrate health and wellness knowledge and skills throughout the school and curriculum.

In order to qualify for this endorsement the candidate shall demonstrate the following:

Knowledge Standards

Demonstrates knowledge in general nursing and school nursing concepts and skills delineated in current national professional nursing¹ and school nursing standards² and health concepts and skills delineated in *Vermont's Framework of Standards and Learning Opportunities* including:

Pediatric, community health, emergency, adult, and mental health nursing

Current state and federal laws, regulations, and procedures governing identification, referral, healthcare, privacy issues, placement, and accommodation of students

Learning theory as it applies to health behavior

Health promotion strategies for individuals, families, communities, and health risk factors, including the Centers for Disease Control's Priority Risk Behaviors³

Family, interpersonal relationships, cultural, psychological, sociological, emotional, and environmental factors that influence health behaviors

Family and group dynamics

Effective organization, management, communication, and leadership skills

The process and skills for problem solving, decision making, and conflict resolution

The Vital Results for personal development in *Vermont's Framework of Standards and Learning Opportunities*

Professional and ethical issues in general nursing and school nursing

The Vermont *Standards of Practice: School Health Services*

Purposes, elements, and requirements of the Coordinated School Health Program (CSHP) model

5440-65 School Nurse (Cont'd)

Performance Standards

School nurses strengthen and facilitate the educational process by improving and protecting the health status of students and staff; identifying, assisting, overseeing, and collaborating with other school personnel in the removal or modification of health related barriers to the learning of individual students; and collaborating with other school personnel to promote health education and a healthy learning environment for students and staff. Specifically, the school nurse:

Provision of Health Services

Organizes, provides, and/or oversees the provision of health assessments for individual students and referrals for health management or treatment

Develops, provides and/or oversees direct health services and/or health counseling to assist students, families, and staff in making informed decisions on choices related to health

Develops, provides, and/or oversees implementation of student healthcare plans, health management protocols and policies for all students with health needs and recommends modifications to the school program

Interprets and/or oversees the interpretation of a student's health status to parents/guardians and school personnel

Identifies or assists in identification, refers, and follows through on child abuse and neglect as required by law

Identifies and refers students for psychosocial and substance abuse issues and evaluates interventions

Preventative Health

Maintains, evaluates, interprets, and/or oversees the review of individual student health records

Develops, implements, and/or oversees the implementation of procedures and protocols for the prevention and management of injuries and acute and chronic illness

Promotes, and assists in the control of communicable diseases through development and/or implementation of early detection and preventative immunization programs, surveillance and follow up of contagious diseases, and reporting, as appropriate, to the Vermont Health Department.

Provides health information to individuals, school-related groups, student classes, and community organizations

Collaboration with Other School and Community Personnel

Participates as the health professional member on a variety of teams, including the child education evaluation teams that develop Individual Education Plans (IEPs), 504 plans, educational support team (EST) recommendations, and other specialized plans for students

Acts as the case manager of 504 plans for students with health issues

5440-65 School Nurse (Cont'd)

Coordinates and/or collaborates with other school and community personnel to ensure a safe and health promoting school environment and program for students and staff

Coordinates and/or collaborates with other school and community personnel to develop, support, implement and evaluate a Coordinated School Health Program (CSHP)

Serves as a resource to other teachers and administrators in health education and as a member of the health curriculum committee

Coordinates school health activities and serves as a liaison on health issues among home, school, and community

Acts as a resource person in promoting health careers

Develops protocols for, trains, and oversees those school personnel delegated to carrying out health service activities in accordance with Vermont *Standards of Practice: School Health Services*

Collaborates in the development of school policies concerning health issues and develops procedures concerning health issues in accordance with school policies

Additional Requirements

Baccalaureate or master's degree from a nursing program accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE)

A current license as a Registered Nurse (RN) in the state of Vermont

Current certificates in cardiopulmonary resuscitation (CPR) and first aid

Four years of clinical nursing experience beyond nursing education

Completion of an educational orientation program provided through the Department of Education and based on the requirements for delivery of health services as defined in the Vermont *School Quality Standards* and the Vermont manual titled *Standards of Practice: School Health Services*

¹ American Nurse's Association (2001). *Standards of Clinical Nursing Practice* (2nd Ed.). Washington, DC: Author.

² Lordi, S. & Bradley, B. *Standards of professional school nursing practice: Applications in the field* (2000, National Association of School Nurses) and National Association of School Nurses Position Statement – *Professional school nurse roles and responsibilities: Education, certification, and licensure* (2000, Author).

³ U. S. Department of Health and Human Services (January, 2000). *Healthy People 2010* (Conference Edition in two volumes). Washington, DC: Author.

5440-65A Associate School Nurse

The holder is authorized to provide school health services in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards

Demonstrates knowledge of general nursing and school nursing concepts and skills delineated in current national nursing¹ and school nursing standards² and health concepts and skills delineated in *Vermont's Framework of Standards and Learning Opportunities* including:

Pediatric, community health, emergency, adult, and mental health nursing

Current state and federal laws, regulations, and procedures governing identification, referral, healthcare, privacy issues, placement, and accommodation of students

Health promotion strategies for the individual and health risk factors, including the Centers for Disease Control's Priority Risk Behaviors³

Interpersonal relationships, cultural, psychological, sociological, emotional, and environmental factors that influence health behaviors

Effective organization, time management, and communication skills

Problem solving and decision making skills

The Vital Results for personal development in *Vermont's Framework of Standards and Learning Opportunities*

Professional and ethical issues in general nursing and school nursing

The Vermont *Standards of Practice: School Health Services*

Purposes of the Coordinated School Health Program

Performance Standards

The associate school nurse improves and protects the health status of students and staff by identifying and participating in the removal or modification of health related barriers to the learning of individual students. Specifically, the associate school nurse:

Provision of Health Service

Provides health assessments for individual students and initiates referrals to other school personnel and community health resources for health management or treatment, as necessary

Provides direct health services and/or health counseling to assist students, families, and staff in making informed decisions on choices related to health

Develops, provides, and/or oversees implementation of student health care plans, management protocols, and policies to meet health needs of students and recommends modifications to the school program

5440-65A Associate School Nurse (Cont'd)

Interprets the student's health status to parents/guardians, and school personnel

Identifies or assists in identification, referral, and follow through on child abuse and neglect as required by law

Identifies and refers students for psychosocial and substance abuse issues and evaluates interventions

Preventative Health

Maintains, evaluates, and interprets individual student health records

Develops and implements procedures and protocols for the prevention and management of injury and acute and chronic illness

Promotes and assists in the control of communicable diseases through development and/or implementation of early detection programs and preventative immunizations, surveillance and follow up of contagious diseases, and reporting, as appropriate, to the Vermont Health Department

Provides health information to individuals

Involvement with Other School and Community Personnel

Contributes as needed as the health professional on a variety of teams, including the child education evaluation teams that develop Individual Education Plans (IEPs), 504 plans, educational support team (EST) recommendations, and other specialized plans for students

Joins with other school and community personnel to ensure a safe and health promoting school environment and program for students and staff

Participates in a Coordinated School Health Program (CSHP)

Serves as a liaison on health issues among home, school, and community

Develops protocols for, trains, and oversees those school personnel delegated to carrying out health service activities in accordance with Vermont *Standards of Practice: School Health Services*

Develops procedures concerning health issues in accordance with school policies

Additional Requirements

Associate's Degree/Diploma from a nursing program accredited by the National League for Nursing (NLN)

A current license as a Registered Nurse (RN) in the state of Vermont

Current certificates in cardiopulmonary resuscitation (CPR) and first aid

Four years of clinical nursing experience that must include community health and pediatric nursing

5440-65A Associate School Nurse (Cont'd)

Completion of an approved educational orientation program provided through the Department of Education and based on the requirements for delivery of health services as defined in the Vermont *School Quality Standards* and the Vermont manual titled *Standards of Practice; School Health Services*

¹ American Nurse's Association (2001). *Standards of Clinical Nursing Practice* (2nd Ed.). Washington, DC: Author.

² Lordi, S. & Bradley, B. *Standards of professional school nursing practice: Applications in the field* (2000, National Association of School Nurses) and National Association of School Nurses Position Statement – *Professional school nurse roles and responsibilities: Education, certification, and licensure* (2000, Author).

³ U. S. Department of Health and Human Services (January, 2000). *Healthy People 2010* (Conference Edition in two volumes) Washington DC: Author.

5440-66 School Psychologist

The holder is authorized to provide school psychological services in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of school psychological concepts and skills delineated in current national professional standards.¹ Specifically, the school psychologist understands:

Data-Based Decision-Making and Accountability: Strategies to assess current problem areas, strengths, and needs at the individual, group, and systems level through assessment, and methods to measure the outcomes of data-based decisions

Interpersonal Communication, Collaboration, and Consultation: Behavioral, mental health, problem solving, instructional, and other consultation models and their application; collaborative models and methods at the individual, group, and systems level

Effective Instruction and Development of Cognitive/Academic Skills: Theories of learning and cognitive development; assessment strategies and techniques, both formal and informal, to identify systemic practices, classroom interventions, and individual student strengths and needs; curriculum and standards-based instruction; instructional intervention strategies for students with cognitive delays or learning disorders; direct and indirect services to facilitate development of cognitive, literacy and other academic skills to enhance academic learning time and self-monitoring strategies

Socialization and Development of Life Skills: Human development and social/emotional functioning; assessment and intervention techniques to determine student goals and to monitor progress toward those goals; affective curriculum and instruction related to conflict resolution and social skills

Student Diversity in Development and Learning: Individual differences, learning styles, and the ranges of abilities and disabilities; strengths and needs of students from diverse, racial, cultural, ethnic, experiential, and linguistic backgrounds

School and Systems Organization, and Climate: General education and special education federal and state laws, regulations, and mandatory reporting requirements relative to the role of the school psychologist; organizational and system-change theory; safe, support-ive, and effective learning environments; current laws, regulations, and procedures governing referrals; identification, evaluation, and placement of students with disabilities

Prevention, Crisis Intervention and Mental Health: Normal and abnormal child and adolescent development; biological, familial, and social influences on behavior; counseling and intervention theories and techniques for students with a wide range of needs and disorders; crisis prevention and crisis response techniques

5440-66 School Psychologist (Cont'd)

Home-School-Community Consultation and Collaboration: Family systems theory including family influences on student development, learning and behavior, and the community services and supports available to schools, families, and students; curriculum and intervention techniques that enhance academic achievement, parent participation and communication

Research, Program Evaluation, Data-Based Decision Making, and Accountability: Research design, statistical methods, and applied research relevant to educational programs; validated, reliable, and research-based programs/interventions; program evaluation at the individual, group, and systems level

School Psychology Practices and Development: History and foundation of School Psychology as a profession; service models, roles, and functions in school psychology; ethical practices and professional issues; federal and state laws and regulations as they pertain to school policies and procedures governing school psychologists

Information Technology: Information technology and related ethical practice specific to school psychology

Performance Standards:

The school psychologist enhances and strengthens the educational process and serves students through collaboration, consultation, and intervention. School psychologists apply knowledge standards at an individual, classroom, family, and systems level. The school psychologist:

Data-Based Decision-Making and Accountability:

Applies standards-based assessment results to address questions about students' progress in learning and achievement and provide data-based recommendations for curriculum change or development through collaboration, consultation, assessment, and intervention

Defines current problem areas, strengths and needs at an individual, group, and systems level through assessment/measurement techniques

Interpersonal Communication, Collaboration, and Consultation:

Collaborates effectively with school personnel, parents, and community providers in the planning and decision-making process at the individual, group, and systems level

Effective Instruction and Development of Cognitive and Academic Skills:

Develops, implements, and evaluates appropriate cognitive and academic goals and interventions for students with specific needs

Links assessment results to interventions which enhance student learning

5440-66 School Psychologist (Cont'd)

Socialization and Development of Life Skills:

Develops, implements, and evaluates behavioral, affective, adaptive, and social interventions to effect behavioral changes and/or social skills development

Student Diversity in Development and Learning:

Implements strategies based upon individual characteristics, strengths, needs, and cultural factors to adapt curriculum and/or school procedures that will promote successful student outcomes

School and Systems Organizations:

Collaborates with school personnel to design, implement, and evaluate school-wide policies and procedures to enhance the educational structure for students

Prevention, Crisis Intervention, and Mental Health:

Develops prevention and intervention programs that promote mental health, physical well-being, and tolerance for others

Assists schools in the development of crisis response policies, protocols, and other practices that create and maintain safe, supportive, effective learning environments

Home-School-Community Consultation and Collaboration:

Demonstrates effective collaboration with families, educators and other members of the community to promote and provide access to comprehensive health and mental health services to children and/or families

Provides support and assistance to parents in situations that may be new, unfamiliar, or stressful for them

Research, and Program Evaluation:

Uses research design, statistical procedures, and applied research to plan and conduct investigations of existing or proposed programs

Critiques curricula programs and applies research knowledge to help guide schools in the selection of curriculum or other academic/intervention programs

Applies and translates research findings into service delivery improvements for students

Defines current problem areas, strengths, and needs at an individual, group, and systems level through assessment/measurement techniques

5440-66 School Psychologist (Cont'd)

School Psychology Practice:

Demonstrates knowledge of ethical, professional, and legal standards and incorporates these into all aspects of professional services including protecting the rights of all parties, maintaining confidentiality, and fulfilling legal requirements

Additional Requirements:

A National Association of School Psychologists (NASP) Specialist Level or Doctoral degree or an American Psychological Association accredited Doctoral degree in School Psychology, or the equivalent.

For the purpose of equivalency, a minimum of 60 graduate semester hours (Specialist Level) or a minimum of 90 graduate semester hours (Doctoral Level) in the knowledge and performance domains of School Psychology is required. Individuals who have completed a minimum of 60 graduate semester hours in clinical, counseling, or industrial/organizational psychology shall follow the American Psychological Association guidelines for re-specialization in obtaining the multiple knowledge and performance domain competencies for the practice of school psychology. In addition, fulfillment of these competencies shall be demonstrated by achieving a score of 660 or higher on the School Psychology examination administered by the Educational Testing Service (ETS) – test code 10400. **Note: passage of this examination is not required if the applicant has the NASP or APA accredited doctoral degree in school psychology.**

A NASP approved internship, APA accredited internship, or an internship with at least 600 clock hours in a school setting, or other appropriate educational setting with students, under the supervision of a licensed or certified School Psychologist who has a minimum of three years of post-degree experience.

An applicant who is a Nationally Certified School Psychologist (NCSP) shall be considered to have fulfilled all of the Knowledge and Performance Standards and all Additional Requirements for licensure as a School Psychologist in Vermont.

¹. *Standards for the Credentialing of School Psychologists, (2000, National Association of School Psychologists)*

5440-54 School Social Worker

The holder is authorized to provide school social work services to students and their families in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Knowledge of the theories and stages of human growth and development, as well as knowledge of the nature of handicapping conditions.

An understanding of each child in his or her family, school and community context, and a sensitivity to the variety of economic and cultural influences which affect each child's life.

Knowledge of counseling theories and techniques for individuals, groups and families, and other professional activities which enhance the facilitation of the affective domain and the learning process within a school setting.

Knowledge of instructional theories, curriculum development and program planning.

Performance Standards:

The ability to apply skills and techniques of counseling and consultation with school personnel, parents and the community to assess social, cognitive and physical functioning toward the end of enhancing students' educational, career and personal development.

The ability to design and implement a program of preventive and development services with the school's instructional program, which assists students in decision-making, self-discipline, communication, problem-solving, and self-assessment.

The ability to plan, implement, evaluate and coordinate a support services plan which promotes the students' development and affects desired student outcomes.

The ability to develop and maintain a student record-keeping system.

Additional Requirements:

A master's degree, or the equivalent, in social work.

A supervised internship experience (600 clock hours) in social work with a minimum of 60 hours of experience in school social work at **both** the elementary (PK-6) and middle/secondary (7-12) levels, under the supervision of a licensed school social worker.

5440-13 Science

The holder is authorized to teach science in grades 7-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of scientific content, concepts, and skills delineated in current national professional standards¹ and in *Vermont's Framework of Standards and Learning Opportunities* including:

Scientific method; investigatory processes and procedures; the nature of theory; roles and responsibilities of scientists; history of science

Typical scientific misconceptions or naïve ideas held by early to late adolescents

Life Sciences – Cell structure and function; anatomy and physiology; molecular basis of heredity; biological evolution; interdependence of organisms; matter, energy and organization in living systems; behavior of organisms

Physical Sciences – The structure of atoms; structure and properties of matter; chemical reactions; motion and forces; conservation of energy and increase in disorder; interactions of energy and matter

Earth, Environmental, and Atmospheric Sciences – The Earth as an integrated system of chemical, physical and biological processes interconnecting the geosphere, hydrosphere, atmosphere, and biosphere; the origins and evolution of the Earth, solar system, and universe, and forces effecting and shaping them over time

Living and Non-Living Systems – The concept of living and non-living systems as collections of interrelated parts and interconnected systems; continuity and change in living and non-living systems from the micro to the macro scale; how personal and collective actions can affect the sustainability of interrelated systems

Performance Standards:

Implements a science curriculum that integrates scientific inquiry skills and scientific content, and enables conceptual development and development of the habits of mind that support scientific inquiry. Specifically, the educator:

Anticipates and elicits the naïve scientific ideas, emerging concepts, and/or misconceptions that students are likely to have prior to instruction

Models the skills, attitudes, and values of scientific inquiry

Asks scientific questions that engage students and helps them to formulate meaningful scientific questions of their own

5440-13 Science (Cont'd)

Designs and implements investigations and assessments that engage students in experimental design, data collection, data analysis, and problem solving, and that provide them with frequent interactions with the natural world as a regular part of the science program

Teaches students how to create strategies to solve scientific problems of increasing complexity by engaging in metacognitive analysis of their own scientific thinking

Creates opportunities for students to collaboratively design and implement scientific investigations, and to present and discuss the results of their investigations

Organizes equipment, work, and learning spaces so that scientific investigations are carried out safely in accordance with state and national safety guidelines

Teaches forms of scientific communication including how to write clear, well-organized science reports; how to read sources of scientific information; and how to understand and use representation and scientific notation

Integrates physical, mathematical, scientific, and technological tools appropriate to students' ages and abilities in order to facilitate scientific inquiry

Conveys to students how the development of scientific theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of “old” knowledge

Conveys to students the roles and responsibilities of scientists with respect to social, economic, cultural and political systems, and provides them with opportunities to actively explore the full scope of career choices available to people in the sciences

Demonstrates sensitivity to inequities in science teaching and careers by incorporating specific instructional strategies that promote equity

Additional Requirements:

A major in biology, chemistry, physics, or earth/environmental/atmospheric sciences, or the equivalent in undergraduate and/or graduate coursework.

A minimum of a practicum, or the equivalent, at the middle/secondary level (7-12) in science, social studies, math, or English.

¹ e.g. *National Science Education Standards* (1996, National Academy of Sciences), *Benchmarks for Science Literacy* (1993, Oxford University Press)

5440-15 Social Studies

The holder is authorized to teach history and the social sciences in grades 7-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of historical and social science content, concepts, and skills delineated in current national professional standards¹ and in *Vermont's Framework of Standards and Learning Opportunities* including:

Methods of historical and social science investigation and analysis, including criteria for critical evaluation of evidence and data, and use of primary sources and varied perspectives to interpret historical events and analyze public issues

The development of students' historical thinking, including common misconceptions in the historical thinking of students

History – Multiple perspectives on significant eras, developments, and turning points in ancient and modern history; causes and effects in human society; forces of historical and cultural continuity and change

Cultural Geography – An understanding of the world in spatial terms, the physical and human characteristics of places and regions, human systems, the interaction of environment and society

Diversity, Unity, Identity, and Interdependence – Culture, including cultural identity, expressions, and universals; the origins of conflict; consequences of discrimination, stereotyping, and prejudice on individuals and groups

Citizenship – Forms of government and their underlying concepts; principles and responsibilities of democratic citizenship; principles of American federalism; origins and evolution of the concepts of equality, justice, freedom, human, and civil rights

Economics – Forms of economic systems; consequences of economic systems on people and environments; government role in economic policy; concept of economic interdependence; principles of micro and macro economics

Performance Standards:

Implements a history and social sciences curriculum that integrates historical and social science content, concepts, and inquiry skills, and enables students to view and analyze communities, societies and/or cultures, and events as apprentice historians and social scientists, to interpret social issues, and to participate purposefully toward the common good in society. Specifically, the educator:

Chooses developmentally appropriate activities to teach historical/social science concepts and processes

5440-15 Social Studies (Cont'd)

Models how historians, geographers, and other social scientists view, analyze, and interpret the world

Provides opportunities for students to examine and interpret historical and contemporary events and issues through active learning strategies such as research, role-play, debate, and discussion

Provides opportunities for students to participate in community-based investigations and service projects, and to access and use local resources

Creates or adopts instructional and assessment tasks that teach students to analyze and interpret primary and secondary sources of all types, identify webs of cause and effect, and differentiate among fact, opinion, and interpretation

Provides opportunities for students to use historical, geographical, and social science research methods, tools, and technologies

Teaches students how to read and understand historical narratives, issue analyses, and persuasive essays, and how to write well-crafted pieces in these genres, including preparing portfolio pieces

Models respect for students' diverse opinions and backgrounds in all classroom interactions, and teaches students how to engage in civil discussions about controversial issues

Additional Requirements:

A major in history, political science, economics, or geography, or the equivalent in undergraduate and/or graduate coursework. (Coursework in cultural anthropology and non-Western area studies may be counted toward geography.)

A minimum of a practicum, or the equivalent, at the middle/secondary level (7-12) in science, social studies, math, or English.

¹ e.g., *National Standards for History* (1996, National Center for History in the Schools), *Curriculum Standards for Social Studies* (1994, National Council for the Social Studies), *Geography for Life* (1994, National Geographic Research & Exploration)

5440-37 Theater Arts

The holder is authorized to teach theater arts in grades PK-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

1. Experience with teaching a performing art to individuals, small groups, and large groups.
2. Demonstrated expertise in acting, directing and the production of live or recorded theatrical performances.
3. Knowledge of dramatic literature from Greek classics to contemporary works, including non-western forms; knowledge of theater history including performance styles, playing spaces, audience, and production styles; and knowledge of literary and character analyses.
4. Knowledge of aesthetic theory including an awareness of drama as a fundamental expression of human communication and emotion.
5. Knowledge of:
 - a. acting styles, theories and techniques;
 - b. theatrical productions including basic skills associated with physical theater and stagecraft such as set design, costuming, and make-up; and
 - c. the fundamentals of speech such as articulation and production.
6. Knowledge of developmental stages of children and how to apply appropriate teaching methods to help children perceive and express themselves and interpret their thoughts and feelings through a medium in the performing arts; and to appreciate the role of the performing arts in their lives.
7. An understanding of the divergent approaches essential to fostering the creative process.
8. Ability to motivate students and develop their appreciation of music, dance or drama.
9. Ability to teach, demonstrate and/or practice the following:
 - a. teach dramatic literature and assist in the organization of a comprehensive theater and/or fine arts curriculum in a school system;
 - b. teach acting styles, theories and techniques, as well as the fundamentals of speech;
 - c. teach skills associated with physical theater and stagecraft;
 - d. act, direct and produce;
 - e. organize an academic or non-academic production or program within the school context including planning, promotion, and production.
10. Ability to develop students' unique capabilities through teaching the basic principals of music, dance, or drama, and through rigorous practice in that medium.
11. Ability to arrange and adapt the curriculum and experiences to meet the needs and abilities of students.

5440-85 Consulting Teacher

The holder is authorized to provide comprehensive special education services to students in grades K-8 and/or grade 7 through age 21, as specified on the endorsement, and to provide leadership in the implementation of best practices in special education. The holder may provide instruction to students who are visually impaired, Deaf, or who have intensive special needs, as those terms are defined in federal regulations pertaining to special education eligibility, in consultation with a Teacher of the Blind and Visually Impaired, Teacher of the Deaf and Hard of Hearing, or Intensive Special Education Teacher.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of human development including the implications of a variety of delays, disorders, and disabling conditions for learning and development; appropriate procedures and strategies for identifying the needs and supporting the learning and development of individuals with special needs; and procedural, consultation/ collaboration, and case management knowledge and skills essential to implementation of an effective educational support program, as delineated in current national professional standards. Specifically, the educator understands¹:

Foundations:

Typical and atypical development at the early childhood through early adolescent (for K-8) or early adolescent through adult level (for 7-21) within each domain, including the wide variation in how individuals learn and typically develop, and the variety of economic, social, and cultural influences which affect each student's life

The interaction of primary language, culture, and familial background with an individual's special needs

The key roles of the special educator as teacher, advocate, consultant, facilitator, and collaborator within the educational support system

The philosophical, ethical, historical, and legal foundations of special education, including the evolution of key litigation, legislation, and regulations affecting special education

Current models and theories that form the basis of special education practice

Current state and federal laws, regulations, and procedures governing referral; identification/evaluation; eligibility determination; Individual Education Plan (IEP) development, implementation, and monitoring; and placement of students with disabilities

Professional and ethical standards of practice

5440-85 Consulting Teacher (Cont'd)

Program Development, Consultation, and Collaboration:

The design and delivery of effective training programs to educational staff and parents

Characteristics, processes, and roles associated with effective collaboration, teaming, consultation, facilitation, and communication within school, family, and community systems

Family systems theory and principles of family-centered practice, including how to work cooperatively and respectfully with all families to support children's learning and development

Strategies for effective group facilitation and leadership

Local, state, and community resources, service delivery systems, and systems of care available to support students and their families

The different roles of the various specialized therapeutic service providers (e.g., OT's, PT's, SLP's) available to support students with disabilities

Roles and responsibilities of paraeducators and their supervision

Assessment:

The comprehensive evaluation process, including legal aspects, appropriate procedures, and principles of non-discriminatory evaluation

Selection, administration, and interpretation of data from various forms of assessment, and interpretation of reports from specialized service providers

Measurement theory and practice, including issues of validity, reliability, norming, and bias

How to enable the participation of students with disabilities in all local and statewide assessments through accommodation and/or alternative assessment methods

Disabilities, Specialized Instruction, and Interventions:

Characteristics of the disabilities stipulated in state law, and impacts of these disabilities on an individual's educational performance

A wide variety of developmentally-appropriate, research-based specialized curricula, instructional practices, and curriculum-based assessments to enable students with disabilities to progress in the general education curriculum

Strategies for proactive and nonaversive behavior management

5440-85 Consulting Teacher (Cont'd)

Foundations of Basic Skill Areas:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the impact of physical, emotional, and cultural factors on language development and the acquisition of reading and writing; role of metacognition in language and literacy development; elements of effective, age-appropriate verbal and non-verbal communication

Language and Word Study – The purposes of language; the phonemic, morphemic, semantic, syntactic, and pragmatic systems of language and their relationship to the reading and writing process; the pronunciation of English phonemes and their graphemes; the developmental progression of phonological awareness; vocabulary development and its relationship to literacy acquisition; the developmental stages of spelling and morphological analysis

Second Language Issues – The process of second language acquisition, challenges second language issues pose to student reading and writing development, and distinctions between language learning issues and learning disabilities

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency

Written Expression – The continuum of writing development; the composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios, and benchmarks and standards for various ages/grade levels

Numeracy – The continuum of development of mathematical thinking, particularly in the areas of mathematical quantification, calculation, and reasoning

Behavior – Typical and atypical social/emotional, psychological, and cognitive development as they relate to behavioral development

Motor Skills – Typical and atypical sensory and motor development; functioning issues associated with various common disabling conditions; relationship of sensory and motor functioning to learning, classroom behaviors, and demonstration of competence in academic and non-academic tasks

5440-85 Consulting Teacher (Cont'd)

Performance Standards:

Working in collaboration with teachers, parents/caregivers, the student, and other professional and paraprofessional personnel, the Consulting Teacher determines eligibility for special education services; develops, implements, case manages, and evaluates individual educational programs for students with special needs; identifies and implements accommodations of learning materials or environments in order to support inclusion; and provides direct instructional services, in order to enable students with special needs to meet Vermont's learning expectations for students. In addition, the Consulting Teacher provides professional and technical assistance to the Special Educator. Specifically, the Consulting Teacher:

Foundations:

Advocates for the particular needs of students with Individual Education Plans and for an effective, comprehensive system of support services for all students

Adheres to ethical and professional standards, and state and federal legal and regulatory requirements pertaining to the education of students identified as having special needs

Program Development, Consultation, and Collaboration:

Demonstrates collaborative and consultative skills in a variety of settings, including IEP planning and development, implementation of the comprehensive evaluation process, and communication with appropriate personnel regarding planning and delivery of instruction and accommodations

Designs materials, programs, and environments in consultation with the classroom teacher and/or appropriate teams, to enable students to progress in the general education curriculum

Works cooperatively and respectfully with all families to support and enhance student's learning and development, including using collaboration skills to foster respectful and beneficial relationships with parents and to encourage their participation in decision making and planning within IEP and EPTs

Uses a variety of data and resources to develop and evaluate Individual Education Plans in a collaborative context that includes the student, his or her family, and other professional colleagues and personnel from other agencies, as appropriate

Obtains multiple perspectives on the strengths and needs of students with disabilities, and defines authentic, observable, measurable, and sequenced short- and long-term objectives and benchmarks in IEP's

Case manages individual student programs and facilitates coordinated services for students with special learning needs and their families, including using collaboration skills to work with professionals and personnel from other agencies, as appropriate, to jointly plan services for children and youth with disabilities and their families

5440-85 Consulting Teacher (Cont'd)

Supports classroom teachers in accommodating students with special needs within the regular classroom by identifying, developing, or modifying instructional materials, curricula, or aspects of the classroom environment, and by modeling instructional methods and/or classroom management techniques

Demonstrates effective team teaching skills with teachers in general classroom settings

Provides systematic training for special educators and other school personnel in specialized instructional techniques and methodologies

Assessment:

Facilitates the comprehensive evaluation process, including adhering to appropriate state and federal guidelines and evaluation procedures

Applies appropriate screening and assessment measures in order to identify learning difficulties and strengths, establish eligibility for special education services, and design effective individualized instruction

Interprets reports from specialized service providers

Incorporates the results of eligibility assessments into written evaluation reports that communicate the array of information gathered in a technically correct format that is understandable to all who must be able to use the reports

Provides professional and technical assistance to the special educator in the comprehensive evaluation process

Specialized Instruction and Interventions:

Supports students to access and benefit from the general education curriculum through specialized instruction and related services

Based on assessment data, selects and implements interventions and accommodations appropriate to individual student needs

Integrates the various specialized therapeutic services into ongoing curriculum and classroom practice

Monitors and assesses the efficacy of instruction based on on-going observation and data collection, makes adjustments to the students' learning plans based on these assessments, and provides support and feedback to classroom teachers to adjust their practice

Creates and/or modifies learning environments and interactions in order to promote self-directed learning, self-confidence, socialization, and academic achievement of students with disabilities

5440-85 Consulting Teacher (Cont'd)

Develops and implements systemic and proactive procedures that address problem behavior at the building, classroom, and individual student levels

Uses strategies to promote maintenance and generalization of students' knowledge and skills across settings

Additional Requirements:

Master's degree in special education, or the equivalent.

Two years of teaching experience.

A minimum of a practicum, or the equivalent, in special education at the elementary/middle (K-8) or middle/secondary (grade 7-age 21) instructional level, depending on the authorization sought. For the full K-age 21 authorization, a minimum of a practicum, or the equivalent, in special education at **both** the elementary/middle (K-8) and middle/secondary (grade 7-age 21) instructional levels is required.

¹ *What Every Special Educator Must Know: Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

5440-80 Early Childhood Special Educator

The holder is authorized to provide early intervention services, including service coordination, case management and comprehensive evaluation services, to children age 3 through age 6.

In order to qualify for this endorsement, the candidate must demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of typical and atypical prenatal through middle childhood growth and development, including the implications of a variety of delays, disorders, and disabling conditions for learning and development; appropriate procedures and strategies for identifying and supporting the learning and development of infants, toddlers, and young children with special needs; and procedural, consultation/collaboration, and management knowledge and skills essential to implementation of an effective early intervention or educational support program, as delineated in current national professional standards¹. Specifically, the educator understands:

Foundations:

Typical and atypical prenatal through middle childhood growth and development within each domain, including the wide variation in how young children learn and typically develop; the integration of development across all skill areas; and the importance of secure, responsive relationships and consistency of caregivers to infants', toddlers', and young children's learning and healthy development

Biological, genetic, environmental, familial, linguistic, and cultural factors in infants', toddlers', and young children's development and their impact on exceptionalities

The importance of sensory exploration and play to infants', toddlers', and young children's cognitive, motor, perceptual, linguistic, and social development

The developmental consequences of stress and trauma, protective factors and resilience, the development of mental health, and the importance of supportive relationships

The role of families as the primary context for young children's development, including the importance of parents' expectations for their children, and how infants', toddlers', and young children's development is affected by and affects parents, siblings, and extended family

The key roles of the early childhood special educator as teacher, advocate, consultant, facilitator, and collaborator within the early intervention/early childhood special education agencies and support systems

The philosophical, ethical, historical, and legal foundations of early intervention and early childhood special education services and programs, including the evolution of key litigation, legislation, and regulations affecting these programs

Current models and theories that form the basis of early intervention and early childhood special education practice

Current laws, regulations, and procedures governing the referral; intake and/or screening; identification/evaluation; eligibility determination; development, implementation, and monitoring of Individualized Family Service Plans (IFSP) and Individualized Education Plans (IEP); and the range of services and support for infants, toddlers, and young children with disabilities and their families

Professional and ethical standards of practice

5440-80 Early Childhood Special Educator (Cont'd)

Program Development, Consultation, and Collaboration:

Characteristics, processes, and roles associated with effective collaboration, teaming, consultation, facilitation, and communication within family, school, and community systems

The articulation of Vermont's learning standards for infants, toddlers, and young children²

Family systems theory and principles of family-centered practice, including how to work cooperatively and respectfully with all families to support infants', toddlers', and young children's learning and development

Strategies for effective group facilitation and leadership

Local, state, and community resources, service delivery systems, and systems of care available to support infants, toddlers, and young children and their families

The different roles of the various specialized therapeutic service providers (e.g., OT's, PT's, SLP's) available to support infants, toddlers, and young children with disabilities

Roles and responsibilities of paraeducators and their supervision

Assessment:

The comprehensive evaluation process, including legal aspects, appropriate procedures, and principles of non-discriminatory evaluation

Appropriate strategies for assessing infants', toddlers', and young children's learning and development, involving families as active participants, and interpreting reports from specialized service providers

Appropriate strategies for identifying family resources, priorities, and concerns

Measurement theory and practice, including issues of validity, reliability, norming, and bias

Disabilities and Interventions:

Characteristics of the disabilities stipulated in state law, and impacts of these disabilities on infants', toddlers', and young children's learning and development and on family functioning

The importance of physical and interpersonal environments on infants', toddlers', and young children's growth and development

Curricular design and instructional strategies that build upon children's play and curiosity and engage the unique intellectual and psychosocial nature and needs of infants, toddlers, and young children

Specialized curricula, instructional strategies, alternative communication modes, and assistive technologies that can enhance development across domains

Strategies for supporting and enhancing learning and development across environments, for incorporating interventions into existing environments (e.g., homes, child care centers, hospitals), and for facilitating maintenance and generalization of skills across environments

5440-80 Early Childhood Special Educator (Cont'd)

Health and safety issues, including procedures regarding disease and accident prevention, hygiene, and first aid; the signs of emotional stress, harassment, child abuse and neglect in infants, toddlers, and young children; state and federal laws and regulations pertaining to early childhood educators and programs

Foundations of Basic Skill Areas:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition, including the phonemic, morphemic, semantic, syntactic, and pragmatic systems of language and their relationship to the development of early literacy; the impact of physical, emotional, and cultural factors on language development and the acquisition of reading and writing; the role of metacognition in language and literacy development; the elements of effective, age-appropriate verbal and non-verbal communication; the ways in which creative and active early learning environments and activities provide opportunities for establishing the foundations of literacy

Second Language Acquisition – The process of second language acquisition and distinctions between language learning issues and learning disabilities

Numeracy – The continuum of development of mathematical thinking, particularly in the areas of mathematical reasoning and quantification

Behavior – Typical and atypical social/emotional, psychological, and cognitive development as they relate to behavioral development

Motor Skills – Typical and atypical sensory and motor development; functioning issues associated with various common disabling conditions; relationship of sensory and motor functioning to learning, behavior, and demonstration of competence in a variety of tasks

Adaptive Skills – Typical and atypical communication, cognitive, and motor skill development as they relate to the development of self-help skills in infants, toddlers, and young children

Performance Standards:

Working in collaboration with families, early educators, and other professional and paraprofessional personnel, the Early Childhood Special Educator determines eligibility for early intervention and special education services; develops, implements, coordinates, and evaluates family-centered early intervention and special educational programs for infants, toddlers, and young children with special needs; identifies and implements accommodations to activities or environments in order to support inclusion; and provides direct services, in order to enable infants, toddlers, and young children with special needs to meet Vermont's learning expectations and to support their families. Specifically, the educator:

Foundations:

Advocates for the particular needs of infants, toddlers, and young children with early intervention and special education plans and for an effective, comprehensive system of support services for all infants, toddlers, and young children and their families

Adheres to ethical and professional standards, and state and federal legal and regulatory requirements pertaining to the education of infants, toddlers, and young children identified as having special needs, and to the involvement of their families

5440-80 Early Childhood Special Educator (Cont'd)

Program Development, Consultation, and Collaboration:

Works cooperatively and respectfully with all families to support infants', toddlers', and young children's learning and development, including using collaboration skills to foster respectful and beneficial relationships with families and to encourage their participation in decision making and planning

Uses a variety of data and resources to develop Individualized Family Service Plans (IFSP) or Individualized Education Plans (IEP) that incorporate both child and family outcomes, in partnership with family members, professional colleagues, and personnel from other agencies, as appropriate

Obtains multiple perspectives on the strengths and needs of infants, toddlers, and young children with disabilities, and defines authentic, observable, measurable, and sequenced short- and long-term objectives and benchmarks in service and educational plans

Coordinates services for infants, toddlers, and young children with special needs and their families across agencies

Designs and evaluates processes that support infants', toddlers', and young children's and their families' transitions among and across programs and settings

Collaborates with families, early educators, and community personnel to enhance infants', toddlers', and young children's learning, growth, and development, including coordinating educational programs and helping families to secure appropriate services

Collaborates with early childhood educators and/or other care providers in accommodating infants, toddlers, and young children with special needs within various settings by identifying, developing, or modifying materials, curricula, or aspects of the environment, and by modeling various methods and techniques

Demonstrates effective teaming and consultation skills with families and other service providers

Assessment:

Facilitates the comprehensive evaluation process, including adhering to appropriate program, state and federal guidelines, and procedures

Assists families of infants, toddlers, and young children to identify their resources, priorities, and concerns in relation to their child's development

Selects and uses a variety of appropriate informal and formal assessments and methods to assess infants', toddlers', and young children's cognitive, social-emotional, communication, motor and adaptive development and health for the purposes of establishing or re-establishing eligibility for early intervention and special education services, and for monitoring overall development

Differentiates among assessments appropriate for different purposes

Interprets reports from specialized service providers

Incorporates the results of eligibility assessments into written evaluation reports that communicate the array of information gathered in a technically correct format that is understandable to all who must be able to use the reports

5440-80 Early Childhood Special Educator (Cont'd)

Monitors, summarizes, and evaluates the acquisition of child and family outcomes as outlined in the IPSP or IEP

Develops and uses formative and summative program evaluation to ensure comprehensive quality of the total environment for children, families, and the community

Interventions:

Supports and facilitates family and child interactions, and the use of their natural environment as the primary contexts for learning and development

Uses appropriate and culturally sensitive adult learning strategies to support families in the level of participation that matches their preference (e.g., coaching, triadic, mentoring)

Incorporates individualized learning, developmental, and functional objectives into an integrated curriculum that builds upon the family's resources, priorities, concerns, and the natural learning opportunities that exist for each family, reflects children's interests, incorporates skills and concepts from across the content areas and developmental domains, and reflects culturally valued content and children's home experiences

Demonstrates effective communication and relationship building skills, interviewing skills, and home visiting methods that engage families of infants and toddlers and that are responsive to families' initial and ongoing priorities

Integrates the various specialized therapeutic services into ongoing intervention and educational practice

Monitors and evaluates the efficacy of interventions based on on-going observation and data collection, makes adjustments to infants', toddlers', and young children's plans based on these assessments, and provides support and feedback to families and to educators and service providers to adjust their practices

Implements curriculum using a variety of learning strategies, including play-based and teacher-directed approaches, in order to meet the needs of all young children

Plans indoor and outdoor environments that are safe, stimulating, engaging, developmentally and functionally appropriate, and intentionally designed to support early intervention or special education goals

Promotes the prosocial development of young children in the areas of self-awareness, personal responsibility, and respect for self and others

Uses various techniques appropriate to young children to encourage and teach positive social skills and interaction among children, and conflict resolution strategies

Selects and implements methods of behavior support and management appropriate for infants, toddlers, and young children

Anticipates peer conflicts and models how to engage in equitable and respectful conversation and behavior

Responds to and follows children's leads, including recognizing and supporting child-initiated play both indoors and outdoors, and developing activities to incorporate and extend their individual interests

5440-80 Early Childhood Special Educator (Cont'd)

Additional Requirements:

Baccalaureate degree with a recommendation for licensure in early childhood special education, or a minimum of 21 credits in early childhood special education

A minimum of a practicum, or the equivalent, in early childhood special education at **both** the infant/toddler (birth to age 2) and preschool (age 3 to age 6) age levels.

¹ *What Every Special Educator Must Know: Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

² *Vermont Early Learning Standards: Guiding the Development and Learning of Children Entering Kindergarten. (Vermont Department of Education Early Childhood Work Group, Fall, 2003)*

5440-84 Educational Speech Language Pathologist

The holder is authorized to provide speech and language services, including case management and comprehensive evaluation services within the area of speech and language, to individuals age 3 through 21.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Thorough understanding of the anatomical, physiological, neurological, physical, psychological, genetic, and cultural dimensions of speech, language, and hearing development; the implications of communication delays and disorders for learning and development; and appropriate procedures and strategies for management and support of the education of individuals with communication delays and disorders, including:

Elements of speech and speech development (i.e., phonology, articulation, fluency, voice, resonance, and prosody)

Elements of language and language development (i.e., phonology, morphology, syntax, semantics, and pragmatics) and disorders of receptive and expressive communication in oral, written, graphic and manual modalities

The relationship between cognition and communication and the impact of a disorder in this relationship on learning and performance

The relationship between language development and literacy development

The impact of receptive or expressive language delays or disorders (including hearing loss or auditory processing disorder) on the acquisition of literacy

The impact of communication delays and disorders on social/emotional, cultural, linguistic, and educational development

The impact of communication delays and disorders on the results of other forms of assessment (e.g. psychosocial, cognitive, or vocational)

Vermont's Framework of Standards and Learning Opportunities, including especially the Vital Results for communication

Current state and federal laws, regulations, and procedures governing the referral, identification, evaluation, eligibility determination, educational placement and accommodation of individuals with communication delays and disorders

Medical referral procedures and criteria

Administration and interpretation of developmentally appropriate traditional and non-traditional screening and assessment measures for communication skills

Teaching strategies and accommodations which support the learning of individuals with communication delays and disorders, including instructional methodologies and augmentative or alternative communication systems that support language development and/or communication in all modalities

5440-84 Educational Speech Language Pathologist (Cont'd)

Local, state, and national services, resources, and educational alternatives available to individuals with communication delays and disorders and their families

Performance Standards:

Working in collaboration with other teachers, parents/caregivers, and other professional and paraprofessional personnel, the Educational Speech Language Pathologist supports the education of individuals with communication delays and disorders by developing and implementing appropriate educational and therapeutic programs and recommending appropriate modifications to the learning environment, in order to enable individuals with communication delays and disorders to meet Vermont's learning expectations for students. Specifically, the educator:

Applies appropriate screening and assessment measures to identify individuals with communication delays and disorders who are eligible for special services under federal and state regulations, using appropriate technologies as needed

Works collaboratively with teachers, parents/caregivers, and other professional personnel to design and implement, or supervise the implementation of, developmentally appropriate educational plans for individuals with communication delays and disorders, including directly teaching, or supervising the teaching of, the communication skills essential to literacy development

Evaluates individuals' communication status and/or progress in relation to their educational plan goals and communicates information about their needs and progress clearly and effectively to parents and other school personnel, both orally and in writing

Acts as a case manager to ensure coordinated services for individuals with communication delays and disorders who are eligible for special services

Assists classroom teachers in accommodating individuals with communication delays and disorders within the regular classroom by identifying or developing educational materials or curricula, aspects of the classroom environment, teaching techniques, and/or classroom management techniques which support the educational and therapeutic needs of individuals with communication delays and disorders

Trains and supports family members and other communication partners of individuals with communication delays and disorders in techniques and/or strategies to enhance their communication effectiveness

Provides training and consulting services to teachers, administrators, and other school personnel regarding the implications of communication delays and disorders for learning, as well as modifications and/or accommodations to support the learning of these individuals

Collaborates with audiologists in the assessment of auditory processing disorders in cases in which there is evidence of speech, language and/or other cognitive-communication disorders; and provides or supervises the intervention for individuals with auditory processing disorders

Collaborates with teachers of English as a second language to enhance students' communication effectiveness

Trains and supervises support personnel according to American Speech Language Hearing Association (ASHA) guidelines for supervision

5440-84 Educational Speech Language Pathologist (Cont'd)

Additional Requirements:

Clinical licensure as a Speech Language Pathologist in the state of Vermont.

A minimum of a practicum in an educational setting in the diagnosis and management of individuals with communication delays and disorders under the supervision of a licensed Educational Speech Language Pathologist or ASHA certified Speech Language Pathologist.

5440-81 Intensive Special Education Teacher

The holder is authorized to provide comprehensive special education services to individuals age 3 through 21 with intensive special needs, as defined in federal regulations pertaining to special education eligibility. The holder is authorized to provide or oversee the provision of instructional services and to collaborate with an interdisciplinary team to design, implement, and evaluate educational plans and accommodations for individuals with intensive special needs.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of human development including the implications of a variety of delays, disorders, and disabling conditions for learning and development; appropriate procedures and strategies for identifying and supporting the learning and development of individuals with severe and multiple disabilities; and procedural, consultation, collaboration, and case management knowledge and skills essential to implementation of an effective educational support program, as delineated in current national professional standards.¹ Specifically, the educator understands:

Foundations:

Typical and atypical development at the early childhood through adult level within each domain, including the wide variation in how individuals learn and typically develop, and the variety of economic, social, and cultural influences that affect each student's life

The interaction of primary language, culture, and familial background with an individual's special educational needs

The key roles of the special educator as teacher, advocate, consultant, facilitator, and collaborator within the educational support system

The philosophical, ethical, historical, and legal foundations of special education, including the evolution of key litigation, legislation, and regulations affecting special education

Current models and theories that form the basis of special education practice

Current state and federal laws, regulations, and procedures governing referral; identification/evaluation; eligibility determination; Individual Education Plan (IEP) development, implementation, and monitoring; and placement of students with severe and multiple disabilities

Professional and ethical standards of practice

Program Development, Consultation, and Collaboration:

The design and delivery of effective training programs to educational staff and parents

Characteristics, processes, and roles associated with effective collaboration, teaming, consultation, facilitation, and communication within school, family, and community systems

Family systems theory and principles of family-centered practice, including how to work cooperatively and respectfully with all families to support children's learning and development

5440-81 Intensive Special Education Teacher (Cont.)

Strategies for effective group facilitation, leadership, and conflict resolution

Local, state, and community resources, service delivery systems, and systems of care available to support students and their families

Guidelines for making related service decisions and different roles of related service providers (e.g., OTs, PTs, SLPs) required to support students with severe and multiple disabilities

Roles and responsibilities of paraeducators and their supervision

Assessment:

The comprehensive evaluation process, including legal aspects, appropriate procedures, and principles of non-discriminatory evaluation

Selection, administration, and interpretation of data from various forms of assessment, and interpretation of reports from specialized service providers, including medical evaluators

Measurement theory and practice, including issues of validity, reliability, norming, and bias

How to enable the participation of students with severe and multiple disabilities in all local and statewide assessments through accommodation and/or alternative assessment methods

Severe and Multiple Disabilities, Specialized Instruction, and Interventions:

Characteristics of the severe and multiple disabilities stipulated in state law, and impacts of these severe and multiple disabilities on an individual's educational performance, including knowledge of medical and health-related conditions

A wide variety of community-referenced, research-based specialized curricula, instructional practices, and curriculum-based assessments, adaptations, and accommodations and supports to enable students with severe and multiple disabilities to function in integrated community environments and to progress in the general education curriculum

Research-based practices in functional curricular design and instruction, multi-level instruction, authentic teaching, curriculum overlapping, and differentiated instruction

Transition-planning and community-based education issues as they pertain to the needs of students with severe and multiple disabilities

Strategies for proactive and non-aversive behavior management

Foundations of Basic Skill Areas:

Development of Verbal and Non-Verbal Communication, Language, and Literacy – Processes, principles, and dimensions of communication and language acquisition; elements of effective, age-appropriate verbal and non-verbal communication; the impact of severe and multiple disabilities and emotional and cultural factors on communication, language development, and the acquisition of reading and writing; role of metacognition in communication, language, and literacy development; the purposes of language; the phonemic, morphemic, semantic, syntactic, and pragmatic systems of language and their relationship to the reading and writing process.

5440-81 Intensive Special Education Teacher (Cont.)

Reading – Reading as the process of constructing meaning from symbols (e.g., text, photographs, line drawings, alphabet, tangible symbols and gestures)

Numeracy – The continuum of development of mathematical thinking, particularly in the areas of mathematical quantification, calculation, and reasoning and their application to the life skills as they relate to severe and multiple disabilities

Behavior – Typical and atypical social/emotional, psychological, and cognitive development as they relate to severe and multiple disabilities

Life Skills – Typical and atypical communicative, cognitive, sensory, and motor skill development as they relate to the development of personal care, socialization, vocational, recreation and leisure, community participation and domestic skills

Sensory and Motor Skills – Typical and atypical sensory and motor development; functioning issues associated with various common disabling conditions; relationship of sensory and motor functioning to learning, classroom behaviors, and demonstration of competence in academic and non-academic tasks

Performance Standards

Working in collaboration with teachers, parents/caregivers, the student, and other professional and paraprofessional personnel, the Intensive Special Education Teacher determines eligibility for special education services; develops, implements, case manages, and evaluates individual educational programs for students with severe and multiple disabilities; identifies and implements accommodations of learning materials or environments in order to support inclusion; and provides direct instructional services, in order to enable students with severe and multiple disabilities to meet Vermont’s learning expectations for students. In addition, the Intensive Special Education Teacher provides professional and technical assistance to the Special Educator or Consulting Teacher. Specifically, the Intensive Special Education Teacher:

Foundations:

Advocates for the particular needs of students with IEPs and for an effective, comprehensive system of support services for all students

Adheres to ethical and professional standards, and state and federal regulatory requirements pertaining to the education of students identified as having severe and multiple disabilities

Program Development, Consultation, and Collaboration:

Demonstrates collaborative and consultative skills in a variety of settings, including IEP planning and development, implementation of the comprehensive evaluation process, and communication with appropriate personnel regarding planning and delivery of instruction and accommodations

Works cooperatively and respectfully with all families to support and enhance student’s learning and development, including using collaboration skills to foster respectful and beneficial relationships with parents and to encourage their participation in decision making and planning within EPTs

Uses a variety of data and resources to develop and evaluate IEPs in a collaborative context that includes the student, his or her family, and other professional colleagues and personnel from other agencies, as appropriate

5440-81 Intensive Special Education Teacher (Cont.)

Obtains multiple perspectives on the strengths and needs of students with severe and multiple disabilities, and defines authentic, observable, measurable, and sequenced short- and long-term objectives and benchmarks in IEPs

Case manages individual student programs and facilitates coordinated services for students with special learning needs and their families, including using collaboration skills to work with professionals and personnel from other agencies, as appropriate, to jointly plan services for children and youth with severe and multiple disabilities and their families

Supports classroom teachers in accommodating students with severe and multiple disabilities within the regular classroom by identifying, developing, or modifying instructional materials, curricula, or aspects of the classroom environment, and by modeling instructional methods and/or classroom management techniques

Demonstrates effective team teaching skills with teachers in general classroom settings

Provides systematic training for special educators and other school personnel in specialized instructional techniques and methodologies

Assessment:

Facilitates the comprehensive evaluation process, including adhering to appropriate state and federal guidelines and evaluation procedures

Applies appropriate screening and assessment measures in order to identify learning difficulties and strengths, establish eligibility for special education services, and design effective individualized instruction

Interprets reports from specialized service providers

Incorporates the results of eligibility assessments into written evaluation reports that communicate the array of information gathered in a technically correct format that is understandable to all who must be able to use the reports

Specialized Instruction and Interventions:

Supports students to access and benefit from the general education curriculum and integrated community environments through specialized instruction and related services

Based on assessment data, selects and implements interventions and accommodations appropriate to individual student needs

Integrates the various specialized therapeutic services into ongoing curriculum and classroom practice

Educates students with severe and multiple disabilities within a framework which focuses on students' strengths, styles, interests, and student and family values and goals

Monitors and assesses the efficacy of instruction based on on-going observation and data collection, makes adjustments to the students' learning plans based on these assessments, and provides support and feedback to classroom teachers to adjust their practice

5440-81 Intensive Special Education Teacher (Cont.)

Creates and/or modifies school or community learning environments and interactions in order to promote communication, self-directed learning, self-confidence, socialization, life skills, and academic achievement of students with severe and multiple disabilities

Develops and implements systemic and proactive procedures that address problem behavior at the building, classroom, and individual student levels

Uses strategies to promote maintenance and generalization of students' knowledge and skills across settings

Designs and implements friendship and advocacy support systems in the regular classroom for students with severe and multiple disabilities, including facilitating partner and peer learning and other cooperative processes

Additional Requirements:

Completion of a baccalaureate level teacher preparation program in the education of students with severe and multiple disabilities, or a minimum of 24 credits in the education of students with severe and multiple disabilities.

A minimum of a practicum, or the equivalent, in the teaching of students with severe and multiple disabilities

¹ *What Every Special Educator Must Know: Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

5440-82 Special Educator

The holder is authorized to provide specialized instruction and intervention services, including case management, to students in grades K-8 and/or grade 7 through age 21, as specified on the endorsement. The holder may also provide comprehensive evaluation and Individual Education Plan (IEP) development services with professional and technical assistance from a Consulting Teacher or Director of Special Education. The holder may provide instruction to students who are visually impaired, Deaf, or who have intensive special needs, as those terms are defined in federal regulations pertaining to special education eligibility, in consultation with a Teacher of the Blind and Visually Impaired, Teacher of the Deaf and Hard of Hearing, or Intensive Special Education Teacher.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of human development including the implications of a variety of delays, disorders, and disabling conditions for learning and development; appropriate procedures and strategies for identifying the needs and supporting the learning and development of individuals with special needs; and procedural, consultation/ collaboration, and case management knowledge and skills essential to implementation of an effective educational support program, as delineated in current national professional standards¹. Specifically, the educator understands:

Foundations:

Typical and atypical development at the early childhood through early adolescent (for K-8) or early adolescent through adult level (for grade 7 through age 21) within each domain, including the wide variation in how individuals learn and typically develop, and the variety of economic, social, and cultural influences which affect each student's life

The interaction of primary language, culture, and familial background with an individual's special needs

The key roles of the special educator as teacher, advocate, consultant, facilitator, and collaborator within the educational support system

The philosophical, ethical, historical, and legal foundations of special education, including the evolution of key litigation, legislation, and regulations affecting special education

Current models and theories that form the basis of special education practice

Current state and federal laws, regulations, and procedures governing referral; identification/evaluation; eligibility determination; Individual Education Plan (IEP) development, implementation, and monitoring; and placement of students with disabilities

Professional and ethical standards of practice

Program Development, Consultation, and Collaboration:

Characteristics, processes, and roles associated with effective collaboration, teaming, consultation, facilitation, and communication within school, family, and community systems

Family systems theory and principles of family-centered practice, including how to work cooperatively and respectfully with all families to support children's learning and development

5440-82 Special Educator (Cont'd)

Strategies for effective group facilitation and leadership

Local, state, and community resources, service delivery systems, and systems of care available to support students and their families

The different roles of the various specialized therapeutic service providers (e.g., OT's, PT's, SLP's) available to support students with disabilities

Roles and responsibilities of paraeducators and their supervision

Assessment:

The comprehensive evaluation process, including legal aspects, appropriate procedures, and principles of non-discriminatory evaluation

Selection, administration, and interpretation of data from various forms of assessment, and interpretation of reports from specialized service providers

Measurement theory and practice, including issues of validity, reliability, norming, and bias

How to enable the participation of students with disabilities in all local and statewide assessments through accommodation and/or alternative assessment methods

Disabilities, Specialized Instruction, and Interventions:

Characteristics of the disabilities stipulated in state law, and impacts of these disabilities on an individual's educational performance

A wide variety of developmentally-appropriate, research-based specialized curricula, instructional practices, and curriculum-based assessments to enable students with disabilities to progress in the general education curriculum

Strategies for proactive and nonaversive behavior management

Foundations of Basic Skill Areas:

Development of Oral Language and Literacy – Processes, principles, and dimensions of oral language acquisition; the relationship between oral language development and literacy development; the impact of physical, emotional, and cultural factors on language development and the acquisition of reading and writing; role of metacognition in language and literacy development; elements of effective, age-appropriate verbal and non-verbal communication

Language and Word Study – The purposes of language; the phonemic, morphemic, semantic, syntactic, and pragmatic systems of language and their relationship to the reading and writing process; the pronunciation of English phonemes and their graphemes; the developmental progression of phonological awareness; vocabulary development and its relationship to literacy acquisition; the developmental stages of spelling and morphological analysis

Second Language Issues – The process of second language acquisition, challenges second language issues pose to student reading and writing development, and distinctions between language learning issues and learning disabilities

5440-82 Special Educator (Cont'd)

Reading Comprehension and Fluency – Reading as the process of constructing meaning from text; the components of fluency; factors that influence comprehension and fluency; typical elements and features of narrative and expository texts, and how readers' awareness of these features supports comprehension; cognitive strategies and instructional approaches for supporting comprehension and fluency

Written Expression – The continuum of writing development; the composing processes that writers use, and planning strategies most appropriate for particular kinds of writing; dimensions of quality writing and types of writing; the conventions of written English; uses of writing portfolios, and benchmarks and standards for various ages/grade levels

Numeracy – The continuum of development of mathematical thinking, particularly in the areas of mathematical quantification, calculation, and reasoning

Behavior – Typical and atypical social/emotional, psychological, and cognitive development as they relate to behavioral development

Motor Skills – Typical and atypical sensory and motor development; functioning issues associated with various common disabling conditions; relationship of sensory and motor functioning to learning, classroom behaviors, and demonstration of competence in academic and non-academic tasks

Performance Standards:

Working in collaboration with teachers, parents/caregivers, the student, and other professional and paraprofessional personnel, the Special Educator implements and case manages individual educational programs for students with special needs, including identifying and implementing accommodations in order to support inclusion and providing direct instructional services, in order to enable students with special needs to meet Vermont's learning expectations for students. In addition, the Special Educator develops and evaluates Individual Education Plans (IEP) and provides comprehensive evaluation services with professional and technical assistance from the Consulting Teacher or Director of Special Education. Specifically, the educator:

Foundations:

Advocates for the particular needs of students with Individual Education Plans and for an effective, comprehensive system of support services for all students

Adheres to ethical and professional standards, and state and federal legal and regulatory requirements pertaining to the education of students identified as having special needs

Program Development, Consultation, and Collaboration:

Works cooperatively and respectfully with all families to support and enhance student's learning and development, including using collaboration skills to foster respectful and beneficial relationships with parents and to encourage their participation in decision making and planning within IEP and EPTs

Uses a variety of data and resources to develop and evaluate Individual Education Plans in a collaborative context that includes the student, his or her family, and other professional colleagues and personnel from other agencies, as appropriate

5440-82 Special Educator (Cont'd)

Obtains multiple perspectives on the strengths and needs of students with disabilities, and defines authentic, observable, measurable, and sequenced short- and long-term objectives and benchmarks in IEP's

Case manages individual student programs and facilitates coordinated services for students with special learning needs and their families, including using collaboration skills to work with professionals and personnel from other agencies, as appropriate, to jointly plan services for children and youth with disabilities and their families

Supports classroom teachers in accommodating students with special needs within the regular classroom by identifying, developing, or modifying instructional materials, curricula, or aspects of the classroom environment, and by modeling instructional methods and/or classroom management techniques

Demonstrates effective team teaching skills with teachers in general classroom settings

Assessment:

The following competencies shall be performed with the professional and technical assistance of a Consulting Teacher or Director of Special Education:

Facilitates the comprehensive evaluation process, including adhering to appropriate state and federal guidelines and evaluation procedures

Applies appropriate screening and assessment measures in order to identify learning difficulties and strengths, establish eligibility for special education services, and design effective individualized instruction

Interprets reports from specialized service providers

Incorporates the results of eligibility assessments into written evaluation reports that communicate the array of information gathered in a technically correct format that is understandable to all who must be able to use the reports

Specialized Instruction and Interventions:

Supports students to access and benefit from the general education curriculum through specialized instruction and related services

Based on assessment data, selects and implements interventions and accommodations appropriate to individual student needs

Integrates the various specialized therapeutic services into ongoing curriculum and classroom practice

Monitors and assesses the efficacy of instruction based on on-going observation and data collection, makes adjustments to the students' learning plans based on these assessments, and provides support and feedback to classroom teachers to adjust their practice

Creates and/or modifies learning environments and interactions in order to promote self-directed learning, self-confidence, socialization, and academic achievement of students with disabilities

5440-82 Special Educator (Cont'd)

Develops and implements systemic and proactive procedures that address problem behavior at the building, classroom, and individual student levels

Uses strategies to promote maintenance and generalization of students' knowledge and skills across settings

Additional Requirements:

Baccalaureate degree with a recommendation for licensure in special education, or a minimum of 21 credits in special education.

A minimum of a practicum, or the equivalent, in special education at the elementary/middle (K-8) or middle/secondary (grade 7-age 21) instructional level, depending on the authorization sought. For the full K-age 21 authorization, a minimum of a practicum, or the equivalent, in special education at both the elementary/middle (K-8) and middle/secondary (grade 7-age 21) instructional levels is required.

¹. *What Every Special Educator Must Know: : Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

5440-67 Teacher of the Blind and Visually Impaired

The holder is authorized to provide comprehensive special education services to individuals age 3 through 21 who are blind or visually impaired, as defined in federal regulations pertaining to special education eligibility. The holder is authorized to provide or oversee the provision of instructional services and to collaborate with an interdisciplinary team to design, implement, and evaluate educational plans and accommodations for individuals with visual impairments.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of the implications of blindness and visual impairment for learning and development; appropriate procedures and strategies for identifying the needs and supporting the learning and development of blind or visually impaired students; and procedural and consultation/collaboration knowledge and skills essential to the effective education of blind or visually impaired students, as delineated in current national professional standards¹. Specifically, the educator understands:

Foundations:

The history of, and theories, philosophies, and models that provide the basis for, education of the blind or visually impaired

Typical and atypical early childhood through adult growth and development within each domain, including the tremendous variation in how individuals learn and typically develop, and the variety of economic, social, and cultural influences which affect each student's life

Current state and federal laws, regulations, and procedures governing referral; identification/ evaluation; eligibility determination; Individual Education Plan (IEP) development, implementation, and monitoring; and educational placement of individuals who are blind or visually impaired

Various educational placement options and how they impact a blind or visually impaired student's linguistic, academic, social, and emotional development

Professional and ethical standards of practice

Program Development:

Appropriate roles and responsibilities of teachers of the blind or visually impaired and other personnel who support the education of students who are blind or visually impaired

Principles and practices of effective collaboration and consultation in learning environments

Principles of family-centered practice

Local, state, and community services and educational alternatives that are available to support students who are blind or visually impaired and their families, including resources to help parents/guardians deal with concerns regarding educational options and communication modes/philosophies

Strategies for preparing and assisting blind or visually impaired students and their families to make effective transitions from program to program and setting to setting

5440-67 Teacher of the Blind and Visually Impaired (Cont'd)

Assessment:

The components of an appropriate evaluation for eligibility, placement, and program planning decisions for students who are blind or visually impaired, and interpretation of assessment results

Specialized terminology used in the assessment of blind or visually impaired students

Measurement theory and practice, including issues of validity, reliability, norming, and bias

The impact of blindness or visual impairment on the results of other forms of assessment (e.g., psychosocial, cognitive, or vocational)

Blindness/Visual Impairments and Interventions:

The human visual system and related diseases and disorders of the human visual system, including the impact of medications on the visual system

The potential implications of blindness or visual impairment for sensory, cognitive, communicative, physical/motor, behavioral, social/emotional development, and independence

The impact of multiple disabilities on the student who is blind or visually impaired

The interaction of primary language, culture, and familial background with the blind or visually impaired student's disability including the effects of visual impairment on the individual's family and the reciprocal impact on the individual's self-esteem

How etiology, age of onset, and degree of vision loss may impact a student's ability to learn

How other senses compensate when there is an impairment in one or more senses

The importance of blind or visually impaired students achieving age-appropriate levels of literacy and academic achievement

Instructional strategies, devices, and accommodations that support the learning of individuals who are blind or visually impaired in all educational settings

Instructional methods for teaching disability-unique core skills (e.g., Braille, assistive technology skills, and daily living and social skills)

The value of pairing blind or visually impaired students with role models and/or peers who have similar visual impairments

5440-67 Teacher of the Blind and Visually Impaired (Cont'd)

Performance Standards:

Working in collaboration with the student, his or her family, and other school personnel and consultants, the Teacher of the Blind helps to determine eligibility for educational services; helps to develop, implement, and evaluate educational programs for blind or visually impaired students; identifies and implements accommodations to learning materials or environments in order to support inclusion; and provides direct instructional services, in order to enable students who are blind or visually impaired to meet Vermont's learning expectations for students. Specifically, the educator:

Foundations:

Advocates for appropriate services to meet the individual needs of students who are blind or visually impaired

Adheres to ethical and professional standards, and state and federal legal and regulatory requirements pertaining to the education of students who are blind or visually impaired

Program Development:

Works cooperatively and respectfully with all families to support and enhance students' learning and development

Advocates that multiple factors be considered in the development of educational plans for students who are blind or visually impaired: (e.g., severity of visual impairment and potential for using residual vision, independent living needs, and social and emotional needs)

Facilitates the coordination of support personnel to meet the needs of blind or visually impaired students

Supports students and families as they transition between and among settings and programs

Assessment:

Selects and administers appropriate assessments and instruments for the purposes of determining eligibility for special education services, developing and implementing instruction, and evaluating student performance over time

Gathers and interprets information about academic background, medical and family history, and eye reports as they relate to the student's visual status

Participates in the planning, implementation, and evaluation of assessment accommodations which enable participation of students who are blind or visually impaired in local and statewide assessment systems

Interprets, synthesizes, summarizes and effectively communicates assessment information in written reports that are understandable by all who use them

5440-67 Teacher of the Blind and Visually Impaired (Cont'd)

Blindness/Visual Impairments and Interventions:

Identifies levels of language and literacy development and designs lessons that are appropriate in relation to students' academic needs, developmental age, and type/degree of visual impairment, including assisting special educators in the planning and implementation of instruction for blind or visually impaired students who have multiple disabilities and special needs

Enhances learning through the use of tactile and auditory materials and experiential activities

Designs a classroom environment to maximize opportunities for students' auditory, visual, and tactile learning

Uses resources, materials, and techniques that promote academic learning (e.g., Braille, large print, magnifiers, adaptive devices)

Collaborates with other educators in accommodating blind or visually impaired students by identifying, developing, or modifying educational materials or curricula, aspects of the classroom environment, or assistive devices, and by modeling teaching and/or classroom management techniques

Provides information and training to help parents understand the impact of a visual impairment on all areas of their child's life

Additional Requirements:

Completion of a baccalaureate level teacher preparation program in the education of the blind or visually impaired, or a minimum of 30 credits in the education of the blind or visually impaired.

A minimum of a practicum, or the equivalent, in the teaching of students who are blind or visually impaired.

¹. *What Every Special Educator Must Know: What Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

5440-68 Teacher of the Deaf and Hard of Hearing

The holder is authorized to provide comprehensive special education services to individuals age 3 through 21 who are Deaf or hard of hearing, as defined in federal regulations pertaining to special education eligibility. The holder is authorized to provide or oversee the provision of instructional services and to collaborate with an interdisciplinary team to design, implement, and evaluate educational plans and accommodations for individuals who are Deaf or hard of hearing.

In order to qualify for this endorsement, the candidate must demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of the implications of Deafness and hearing loss for learning and development; appropriate procedures and strategies for identifying the needs and supporting the learning and development of Deaf or hard of hearing students; and procedural and consultation/collaboration knowledge and skills essential to the effective education of Deaf or hard of hearing students, as delineated in current national professional standards¹. Specifically, the educator understands:

Foundations:

The history of, and theories, philosophies, and models that provide the basis for, education of the Deaf or hard of hearing

Typical and atypical early childhood through adult growth and development within each domain, including the tremendous variation in how individuals learn and typically develop, and the variety of economic, social, and cultural influences which affect each student's life

Current state and federal laws, regulations, and procedures governing the referral; identification/evaluation; eligibility determination; IEP development, implementation, and monitoring; and educational placement of individuals who are Deaf or hard of hearing

Various educational placement options and how they impact a Deaf or hard of hearing student's cultural identity and linguistic, academic, social, and emotional development

Professional and ethical standards of practice

Program Development:

Appropriate roles and responsibilities of teachers of the Deaf or hard of hearing and other personnel who support the education of students who are Deaf or hard of hearing

Principles and practices of effective collaboration and consultation in learning environments

Principles of family-centered practice

Local, state, and community services and educational alternatives that are available to support students who are Deaf or hard of hearing and their families, including resources to help parents/guardians deal with concerns regarding educational options and communication modes/philosophies

Strategies for preparing and assisting Deaf or hard of hearing students and their families to make effective transitions from program to program and setting to setting

5440-68 Teacher of the Deaf and Hard of Hearing (Cont'd)

Assessment:

The components of an appropriate evaluation for eligibility, placement, and program planning decisions for students who are Deaf or hard of hearing, and interpretation of assessment results

Specialized terminology used in the assessment of Deaf or hard of hearing students

Measurement theory and practice, including issues of validity, reliability, norming, and bias

The impact of deafness or hearing loss on the results of other forms of assessment (e.g., psychosocial, cognitive, or vocational)

Deafness/Hearing Loss and Interventions:

The characteristics of hearing loss and its potential implications for sensory, cognitive, communicative, physical, behavioral, social, and emotional development

The impact of multiple disabilities on the student who is Deaf or hard of hearing

The interaction of primary language, culture, and familial background with the Deaf or hard of hearing student's disability, including the effects of hearing loss on the individual's family and the reciprocal impact on the individual's self-esteem

How etiology, age of onset, and degree of hearing loss may impact a student's language development and the ability to learn

The use of a multi-sensory approach when one or more senses are impaired

The process of language acquisition, including second language acquisition, for students whose native language is American Sign Language (ASL)

The importance of Deaf or hard of hearing students achieving age-appropriate levels of literacy and academic achievement

Languages or communication methods appropriate to students who are Deaf or hard of hearing

Instructional strategies, devices, and accommodations that support language development and/or communication in all modalities

The value of pairing Deaf or hard of hearing students with role models and/or peers who have similar hearing loss and a Deaf cultural perspective, when appropriate

5440-68 Teacher of the Deaf and Hard of Hearing (Cont'd)

Performance Standards:

Working in collaboration with teachers, parents/caregivers, the student, and other professional and paraprofessional personnel, the Teacher of the Deaf assists in the determination of eligibility for special education services; develops, implements, may case manage, and evaluates individual educational programs for students who are Deaf or hard of hearing; identifies and implements accommodations to learning materials or environments in order to support inclusion; and provides direct instructional services, in order to enable students who are Deaf or hard of hearing to meet Vermont's learning expectations for students. Specifically, the educator:

Foundations:

Advocates for appropriate services to meet the individual needs of students who are Deaf or hard of hearing

Adheres to ethical and professional standards, and state and federal legal and regulatory requirements pertaining to the education of students who are Deaf or hard of hearing

Program Development:

Works cooperatively and respectfully with all families to support and enhance students' learning and development

Advocates that multiple factors be considered in the development of educational plans for students who are Deaf or hard of hearing (e.g., communication needs, the student and family's preferred mode of communication and/or cultural linguistic preference, the potential for using residual hearing, academic level)

Facilitates the coordination of support personnel to meet the communication needs of Deaf or hard of hearing students

Supports students and families as they transition between and among settings and programs

Assessment:

Selects and administers appropriate assessment tools using the preferred language of the student for the purposes of determining eligibility for special education services, developing and implementing instruction, and evaluating student performance over time

Gathers and analyzes appropriate communication samples from students that reflect nonverbal and linguistic skills

Participates in the planning, implementation, and evaluation of assessment accommodations which enable participation of students who are Deaf or hard of hearing in local and statewide assessment systems

Interprets, synthesizes, summarizes and effectively communicates assessment information in written reports that are understandable by all who use them

5440-68 Teacher of the Deaf and Hard of Hearing (Cont'd)

Deafness/Hearing Loss and Interventions:

Identifies levels of language and literacy development and designs lessons that are appropriate in relation to students' academic needs, developmental age, and degree of hearing loss, including assisting special educators in the planning and implementation of instruction for Deaf or hard of hearing students who have multiple disabilities and special needs

Enhances learning through the use of visual materials and experiential activities

Designs a classroom environment to maximize opportunities for students' visual and/or auditory learning

Prepares students for the appropriate use of interpreters

Uses languages, resources, materials, and techniques that promote effective instructional communication (e.g., total communication, cued speech, ASL, aural/oral, hearing aids, cochlear implants, augmentative and assistive equipment, FM systems, and closed caption)

Maintains and/or advocates for a learning environment that facilitates the services of the interpreter, note takers, and other support personnel

Collaborates with other educators in accommodating Deaf or hard of hearing students by identifying, developing, or modifying educational materials or curricula, aspects of the classroom environment, or assistive devices, and by modeling teaching and/or classroom management techniques

Supports and/or trains family members and other communication partners of students who are Deaf or hard of hearing in techniques and/or strategies to enhance their communication effectiveness

Additional Requirements:

Completion of a baccalaureate level teacher preparation program in Deaf education *and* 30 credits in a related field (e.g., education, speech and language, communication, psychology, audiology, or an academic content area), or a Master's degree in Deaf education

A minimum of a practicum, or the equivalent, in the teaching of students who are Deaf or hard of hearing.

¹. *What Every Special Educator Must Know: Ethics, Standards, and Guidelines for Special Educators. Fifth Edition. (The Council for Exceptional Children, 2003).*

5440-01 Agriculture, Food and Natural Resources

The holder is authorized to teach agriculture, food and natural resources in grades 7-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. A total of one year of practical work experience in the vocational agriculture area of specialization.
2. Knowledge of the concepts, methods, techniques, and practices associated with one of the following areas of vocational agriculture:
 - a. production management;
 - b. agricultural sales and service;
 - c. agriculture mechanics;
 - d. horticulture;
 - e. agricultural resources.
3. Knowledge of supervised occupational experience programs and how to administer them.
4. Knowledge of appropriate computer technologies associated with the vocational agriculture areas of specialization.
5. Ability to involve students of all abilities in the concepts, methods, techniques, practices and new technologies of production management, agricultural sales and service, agricultural mechanics, horticulture, or agricultural resources.
6. Ability to teach students how to purchase, safely operate, and maintain hand and power tools, power unit, systems, heavy machinery and the farm buildings as relevant to the area of specialization.
7. Ability to teach students about the management and operations of agricultural business as relevant to the area of specialization.
8. Ability to introduce students to employment and career opportunities in vocational agriculture.
9. Ability to maintain a high level of skill performance in the area of vocational agriculture specialization.
10. Ability to integrate new skills, technologies, concepts, and other developments into the curriculum being taught.
11. Ability to assemble and use an advisory committee of community members to assist in curriculum development and program evaluation.
12. Ability to develop student skills in leadership, citizenship, and interpersonal relations, as well as to develop appropriate work attitudes and habits through activities which may include those of Future Farmers of America.

5440-01 Agriculture, Food and Natural Resources (Cont'd)

Required knowledge in area of specialization (see #1 above):

Product Management

1. Knowledge of land uses and corrective practices, harvest varieties of forage and grain crops, pest control practices, and storage, processing and marketing of plant materials.
2. Knowledge of livestock breeds, and methods for feeding, breeding, housing, milking, maintaining the health of farm animals and for processing and marketing animal products.
3. Knowledge of how to purchase, operate and maintain hand and power tools and farm machinery, as well as how to plan, construct, and maintain farm buildings.
4. Knowledge of how to administer and manage an agricultural production business including business planning, the development of budget and inventory systems, how to record and analyze production and performance records, write contracts, complete government, banking, and insurance forms.

Agricultural Sales and Service

1. Knowledge of how to identify agricultural supplies and services.
2. Knowledge of how to provide safe and adequate storage, housing and transportation for agricultural supplies and products, plant materials, and livestock.
3. Knowledge of selling and merchandising of agricultural supplies and products, plant materials and livestock.
4. Knowledge of how to administer and manage an agricultural business which handles the production phase of agriculture, including knowledge of business planning, inventory systems, business record keeping, writing contracts, and completing government, banking and insurance forms.

Agricultural Mechanics

1. Knowledge of how to operate safely and maintain agricultural power units such as hydraulic and cooling systems, as well as how to operate and maintain agricultural machinery and special hand and power tools.
2. Knowledge of how to plan, construct and maintain agricultural structures including knowledge of plumbing and heating, ventilation and refrigeration systems.
3. Knowledge of the principles of electricity including electrical wiring and how to maintain electrical motors and controls.
4. Knowledge of how to use arc and gas welders.

5440-01 Agriculture, Food and Natural Resources (Cont'd)

Horticulture

1. Knowledge of how to grow and maintain flowers, house plants, landscape plants, shrubs, trees, turf, vegetables, small fruit or orchard crops for recreational, environmental, or ornamental purposes, or for human consumption.
2. Knowledge of the principles and practices in the management and operation of a greenhouse, a nursery, a landscape business, a fruit business, or a vegetable business including planning, record keeping, crop schedules, sanitation, pest control, marketing, customer relations, and of how to file appropriate banking, insurance and government forms.
3. Knowledge of how to purchase, operate and maintain hand and power tools and machinery including tillers, mowers, misting systems, chainsaws, landscaping and turf tools and tractors.

Agricultural Resources

1. Knowledge of how to identify trees, read maps, survey, manage, and harvest woodlot products, manage Christmas tree plantations, and produce and market maple products.
2. Knowledge of how to operate safely and maintain hand and power tools used in the agricultural industry, including axes and chainsaws.
3. Knowledge of how to operate safely and maintain heavy equipment such as skidders, bulldozers and backhoes.
4. Knowledge of testing and analyzing soils, soil management and conservation practices, water management practices, and management of wildlife species in their natural habitat.
5. Knowledge of how to develop lands for safe recreational use such as campgrounds, hunting and fishing preserves and nature or hiking trails.
6. Knowledge of how to manage and operate a business in agricultural resources including business planning, record keeping, filing government, banking and insurance forms, estimating job costs, and writing contracts.

5440-03 Business and Administration

The holder is authorized to teach business and administration in grades 7-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of business education concepts and skills delineated in current national professional standards¹ and in *Vermont's Career and Technical Business and Administration Program Competencies*² including:

The career development/planning process, occupational skills standards, workplace skill requirements, *Vermont's Career and Technical Knowledge and Skills*, recognized industry standards, and the relationship between work and learning as related to the foundations of business

The rationale for integrating student organization activities into the curriculum

Elements of effective business communication, deportment, and self-presentation

The learning principles as related to psychomotor skill development.

Current and emerging business technology procedures and systems including E-commerce, accurate and appropriate keyboarding skills; word processing applications software, including database, spreadsheet, graphic, desktop presentation, multimedia, imaging, and other emerging computer applications; and a variety of programming languages

Generally Accepted Accounting Principles (GAAP) and practices (manual and computerized), as they apply to ownership, payroll, income taxation, and managerial systems

Economic systems and issues, including the role of exchange and money, consumer economic issues and concerns, and changing labor and career opportunities and their impact on the relevancy of classroom instruction.

Business law, including the types of law affecting business, structure of the court system, and the legal impact of technology

Business management, including types of organizational structures and advantages and disadvantages of each; management principles and planning; processes of analysis of business opportunities

Entrepreneurship, including traits of successful entrepreneurs

Marketing and communication, including roles of each and their impact on individuals, business, and society

Finance and insurance, including concepts and purposes of money management, banking, insurance, and credit

The preparation and analysis of financial statements using manual and computerized systems, evaluation of organizational performance, and use of statistical analysis to interpret consumer and business data to solve problems.

The role of competitive markets in the U.S. and other economies

5440-03 Business and Administration (Cont'd)

The diagnosis and solution of problems in computer applications; operating systems and environments; utilities; and office procedures and management, including workflow, voice transcription, accessing references, and records management

Principles of financial decision making, including budgeting, investing, taxes, financial services, and consumer economic purchasing

The development of business and marketing plans

Performance Standards:

Implements a comprehensive, standards-based business and administration curriculum that enables students to acquire the knowledge, skills, and attitudes that will prepare them to be successful in their personal financial lives and to prepare those students who seek further training in business. Specifically the educator:

Plans, delivers, and evaluates instruction based upon knowledge of the business and administration field, *The National Standards for Business Education*, and *Vermont's Career and Technical Business and Administration Program Competencies*, and student, community, and workforce needs

Teaches students to recognize and be sensitive to the cultural expectations of specific work sites

Effectively teaches youth leadership skills

Collaborates with colleagues, community, business/industry, and parents to maximize curricular and instructional resources

Plans, organizes and manages laboratories/technical facilities for instruction so that activities are carried out safely in accordance with state and national safety guidelines

Teaches students how to communicate and present themselves in a manner appropriate to the business environment, and how to use technology to enhance the effectiveness and expediency of their communications

Identifies, compares, selects, evaluates, uses, installs, upgrades, and customizes application software for the business and administration program

Additional Requirements:

Work experience using business and administrative skills through cooperative education, internship, and/or paid work experience

5440-04 Business and Administration in Career and Technical Centers

The holder is authorized to teach business and administration in grades 9-12 in a career and technical center.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of business education concepts and skills delineated in current national professional standards¹ and in *Vermont's Career and Technical Business and Administration Program Competencies*² including:

The career development/planning process, occupational skills standards, workplace skill requirements, *Vermont's Career and Technical Knowledge and Skills*, recognized industry standards, and the relationship between work and learning as related to the foundations of business

The rationale for integrating student organization activities into the curriculum

Elements of effective business communication, deportment, and self-presentation

The learning principles as related to psychomotor skill development.

Current and emerging business technology procedures and systems including E-commerce, accurate and appropriate keyboarding skills; word processing applications software, including database, spreadsheet, graphic, desktop presentation, multimedia, imaging, and other emerging computer applications; and a variety of programming languages

Generally Accepted Accounting Principles (GAAP) and practices (manual and computerized), as they apply to ownership, payroll, income taxation, and managerial systems

Economic systems and issues, including the role of exchange and money, consumer economic issues and concerns, and changing labor and career opportunities and their impact on the relevancy of classroom instruction.

Business law, including the types of law affecting business, structure of the court system, and the legal impact of technology

Business management, including types of organizational structures and advantages and disadvantages of each; management principles and planning; processes of analysis of business opportunities

Entrepreneurship, including traits of successful entrepreneurs

Marketing and communication, including roles of each and their impact on individuals, business, and society

Finance and insurance, including concepts and purposes of money management, banking, insurance, and credit

The preparation and analysis of financial statements using manual and computerized systems, evaluation of organizational performance, and use of statistical analysis to interpret consumer and business data to solve problems.

5440-04 Business and Administration in Career and Technical Centers (Cont'd)

The role of competitive markets in the U.S. and other economies

The diagnosis and solution of problems in computer applications; operating systems and environments; utilities; and office procedures and management, including workflow, voice transcription, accessing references, and records management

Principles of financial decision making, including budgeting, investing, taxes, financial services, and consumer economic purchasing

The development of business and marketing plans

Performance Standards:

Implements a comprehensive, standards-based business and administration curriculum that enables students to acquire the knowledge, skills, and attitudes that will prepare them to be successful in their personal financial lives and to prepare those students who seek further training in business. Specifically the educator:

Plans, delivers, and evaluates instruction based upon knowledge of the business and administration field, *The National Standards for Business Education*, and *Vermont's Career and Technical Business and Administration Program Competencies*, and student, community, and workforce needs

Teaches students to recognize and be sensitive to the cultural expectations of specific work sites

Effectively teaches youth leadership skills

Collaborates with colleagues, community, business/industry, and parents to maximize curricular and instructional resources

Plans, organizes and manages laboratories/technical facilities for instruction so that activities are carried out safely in accordance with state and national safety guidelines

Teaches students how to communicate and present themselves in a manner appropriate to the business environment, and how to use technology to enhance the effectiveness and expediency of their communications

Identifies, compares, selects, evaluates, uses, installs, upgrades, and customizes application software for the business and administration program

Additional Requirements:

Work experience using business and administrative skills through cooperative education, internship, and/or paid work experience

5440-04 Business and Administration in Career and Technical Centers (Cont'd)

Business and Administration – Occupational Program

In addition to the core standards for all business and administration teachers, those who teach in the occupational-based programs in career and technical centers will also meet the following standards:

Knowledge Standards:

How to develop business partnerships and form program advisory committees for curriculum development

How to appropriately incorporate *Vermont's Career and Technical Business and Administration Program Competencies* and industry credentials into the curriculum

The importance of integrating Youth Leadership organizations into the curriculum.

Performance Standards:

Teaches leadership skills, organizes and manages an effective co-curricular student organization, and implements the Future Business Leaders of America's activities as an integral part of instruction.

Develops partnerships with members of the business community and forms program advisory committees to develop learning opportunities for students.

Selects appropriate skill standards and industry credentials for the Business and Administration program area.

Business and Administration - Information Technology (Trades and Industry Category)

In addition to the core standards for all business and administration teachers, those who teach in the Information Technology Career Cluster in Career and Technical Centers will meet the Information Technology category competencies, as noted under the Trades and Industry Endorsement. All business and administration teachers adding this category designation must meet the industry certification requirements necessary to instruct in this endorsement category.

¹ e.g., *National Standards for Business Education* (1995, National Business Education Association)

² *Vermont's Career and Technical Business and Administration Program Competencies* (2002, Vermont Department of Education)

5440-73 Career and Technical School Counseling Coordinator

The holder is authorized to provide and coordinate career and technical school counseling services in grades 9-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. Two years of educational work experience preferably in vocational education.
2. Knowledge of the principles of guidance and counseling appropriate to an educational setting.
3. Knowledge of career development and occupational information including a knowledge of vocational work areas, labor force needs, training and placement sources, and of how to administer and interpret student interest, aptitudes and ability tests.
4. Knowledge of the goals of vocational education, as well as knowledge of the state and federal regulations associated with vocational education and labor and industry.
5. A total of two years of work experience outside of the area of education.
6. The ability to work effectively with individuals, as well as with small and large groups of students, to orient them to the world of work, introduce them to areas of vocational work, and help them define and develop their occupational goals and plans.
7. Ability to plan, organize, implement and evaluate guidance programs in an area vocational center, including:
 - a. the ability to develop and maintain occupational information and appropriately disseminate it to students and teachers;
 - b. the ability to plan, organize and implement guidance activities including student orientation, career awareness programs, development of student record keeping systems, and development of student career goals and plans;
 - c. the ability to work with guidance counselors and administrators from all area schools to deliver coordinated guidance services;
 - d. the ability to work with teachers and administrators to implement guidance services including procedures for finding jobs, communicating career opportunities to students, and following up graduates;
 - e. the ability to work with employers, community leaders, job services staff, and other training and placement sources to assist in the development of up-to-date vocational curriculum;
 - f. the ability to evaluate area guidance services taking into account the needs of individuals and groups of students; and
 - g. the ability to represent the vocational center to the community including developing and disseminating information about the center and its services.

5440-87 Career and Technical Special Needs Teacher

The holder is authorized to provide special education instructional services to individuals in grades 9-12 who are enrolled in career and technical education.

In order to be judged as competent, the candidate must have the following qualifications:

1. Two years of educational experience involving handicapped or disadvantaged students.
2. Knowledge of the goals of vocational education in Vermont as well as knowledge of service delivery models, policies and practices in vocational and special education, and of other public and private agencies involved with providing programs and services to special needs students.
3. Knowledge of how to develop, use and interpret vocational assessment instruments.
4. Knowledge of how to plan, organize, implement and evaluate a vocational program which will meet the needs of special student in a vocational program including evaluating student performance.
5. Ability to plan, organize, implement and evaluate a program which meets the needs of handicapped and disadvantaged students pursuing training and education in an area of vocational education including:
 - a. the ability to assess students' current functioning in the basic skills, to identify agencies or persons capable of conducting special assessment relevant to the vocational program, and to organize assessment information for the purposes of developing a vocational instruction program based on the students' needs;
 - b. the ability to understand the basic requirements for entry and participation in a vocational program and the ability to work effectively with vocational teachers to adapt the requirements, program activities, and objectives to meet the needs of handicapped and disadvantaged students;
 - c. the ability to assist vocational teachers and other specialists in the development of individualized vocational plans for special needs students;
 - d. the ability to develop appropriate teaching strategies to meet the needs of the special needs students;
 - e. the ability to evaluate or provide assistance in evaluating special needs students' performance in meeting their individualized vocational plans.
 - f. the ability to work with vocational teachers and employers to develop on-the-job training and employment opportunities for special needs students as well as to help facilitate the students' transition from school to the work place.

5440-60 Cooperative Career and Technical Education

The holder is authorized to provide coordinating cooperative education services to occupational based programs in grades 9-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. Two years of recent work experience outside of the field of education.
2. Knowledge of the principles and practices useful for developing and implementing a cooperative vocational experience program including knowledge of the world of work.
3. Knowledge of state and federal regulations associated with vocational education and labor and industry.
4. Ability to plan, implement and evaluate a successful cooperative vocational experience program including:
 - a. the ability to survey local business and industry and develop a good working relationship between the school and the business community;
 - b. the ability to provide services to students in the cooperative vocational experience program including conducting orientation, selection and scheduling students for appropriate work sites, and maintaining student records related to the cooperative vocational experience;
 - c. the ability to select safe and appropriate work sites;
 - d. the ability to form an advisory committee of community members to develop placement opportunities;
 - e. the ability to develop and maintain current information on opportunities for student placement;
 - f. the ability to work effectively with employers to develop suitable training programs for students seeking cooperative vocational experience;
 - g. the ability to assist both students and the employer during the training experience including providing information from regular observations at the training site and conferences with the student and employer;
 - h. the ability to evaluate the cooperative vocational education program through maintained contact with program graduates and the business/industrial community.

5440-10 Design and Technology Education

The holder is authorized to teach design and technology education in grades 5-12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of technology education concepts and skills delineated in current national professional standards¹ and in *Vermont's Framework of Standards and Learning Opportunities* including:

Development of Technological Thinking: Typical misconceptions or naïve ideas about technology held by early to late adolescents

Foundations: Applications of design and engineering processes to the solution of problems; the evolution of technology, including the historical relationships of science, mathematics, and technology; social, economic, cultural, and political roles and responsibilities of scientists, engineers, and technologists

Technology Content Areas: Systemic understanding of the applications of technology in various areas including communications, construction, manufacturing, transportation, energy, health, and biotechnology; working knowledge of a variety of tools and machines and their proper uses and applications in designing and making solutions; properties and nature of a variety of natural and synthetic materials and their appropriate applications; processes involved in the extraction, distribution, processing, and disposal of natural resources

Outputs and Impacts: Ethical and practical issues related to control of the outputs and impacts of our expanding technological activities in sectors including: communications, construction, manufacturing, power and transportation, energy, health technology, and biotechnology

Performance Standards:

Implements an inquiry-based technology education curriculum that integrates technology education problem-solving skills with content, and enables development of the habits of mind that support technological inquiry. Specifically, the educator:

Models the skills and attitudes of technological problem solving

Designs and implements investigations and assessments that engage students in problem solving activities in which they design and construct models that demonstrate solutions to particular problems

Provides students with frequent interactions with the real world as a regular part of the technology education program

Creates opportunities for students to develop and demonstrate leadership, communication, and teamwork skills by working collaboratively to design solutions and to present and discuss them with a variety of audiences

Teaches students how to be responsible consumers of technology, including understanding the positive and negative consequences of individual and societal choices

Organizes equipment, work, and learning spaces so that technological investigations are carried out in accordance with state and national safety guidelines

5440-10 Design and Technology Education (Cont'd)

Anticipates and elicits the naïve ideas, emerging concepts, and/or misconceptions that students are likely to have prior to instruction

Models and explicitly teaches forms of technical communication, including how to read sources of technical information and how to write clear, well organized technical reports

Integrates physical, mathematical, scientific, and technological tools appropriate to students' ages and abilities in order to facilitate technological inquiry and problem solving

Conveys to students how the development of technology and technological theory and understanding is a historical process with continuous creation of new knowledge and refinement or rejection of “old” knowledge

Conveys to students the roles and responsibilities of scientists, engineers, and technologists with respect to social, economic, cultural and political systems, and provides them with opportunities to actively explore the full scope of career choices available to people in the field of technology

Demonstrates sensitivity to inequities in technology education teaching and careers by incorporating specific instructional strategies that promote equity

Additional Requirements:

An experience (paid or unpaid) applying design and engineering processes to the solution of a problem, including the manipulation of materials to make and test a prototype

¹ e.g., *Standards for Technological Literacy* (2000, International Technology Education Association)

5440-09 Family and Consumer Sciences

The holder is authorized to teach family and consumer sciences in grades 5 – 12.

In order to qualify for this endorsement, the candidate shall demonstrate the following:

Knowledge Standards:

Demonstrates knowledge of family and consumer sciences education concepts and skills delineated in current national professional standards¹ and in *Vermont's Framework of Standards and Learning Opportunities*, including:

Personal Development & Life Planning: Personal development, life planning, and career exploration skills, including careers related to the study of Family and Consumer Sciences

Nutrition, Wellness & Food Science: Principles of food science, food technology, and nutrition, and their relationship to growth, development, health, and wellness

Consumer & Resource Management: Principles and practices of consumer resource management relative to human, material, and environmental factors, with emphasis on financial literacy

Family & Interpersonal Relationships: Changing roles and needs of individuals in the context of relationships with others and within the family system; multiple factors influencing the well being of families and interpersonal relationships including economic, environmental, gender, sexuality, and legal issues

Parenting & Human Development: Human growth and development, with emphasis on early childhood development; parent/guardian roles and responsibilities

Housing & Design: Historical, cultural, social, and technological factors influencing residential housing and interiors; considerations in selecting housing and interiors, including individual/family income, interests, needs and values; elements and principles of design; planning interior space design

Clothing, Textiles, & Related Arts: Historical, cultural, social, and other factors influencing fashion trends and individual apparel needs; clothing and textile characteristics, design, construction, and maintenance

Performance Standards:

Implements a comprehensive family and consumer sciences curriculum that integrates content and process standards and enables students to acquire the knowledge, skills, and attitudes that will assist them in their personal, family, and career lives, and to prepare those students who seek further training in family and consumer sciences related careers. Specifically, the educator:

Plans, delivers, and evaluates research-based instruction that incorporates national and state standards, and student, family, community, and societal needs

Facilitates instruction which includes the following: analysis of recurring and evolving family, workplace, and community concerns; application of scientific inquiry to test theories and gain factual knowledge on which to base judgments; and use of reasoning processes, individually and collaboratively, to take responsible and ethical action for self, others, and society

Creates activities which enable students to apply their knowledge of Family and Consumer Sciences to make informed decisions

5440-09 Family and Consumer Sciences (Cont'd)

Effectively facilitates the development of youth leadership skills by integrating programs and activities of appropriate national student organizations into instruction and assessment

Plans, organizes, and manages classroom laboratory experiences in accordance with state and national safety guidelines, with emphasis on equipment and food safety

Collaborates with colleagues, parents, and community members to maximize instructional resources and effectiveness

¹. *National Standards for Family and Consumer Sciences Education*, (1998, National Association of State Administrators for Family and Consumer Sciences Education).

5440-34 Health Services

The holder is authorized to teach health services in grades 9-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. A total to at least two years of recent work experience in the health occupation area leading to the acquisition of knowledge and development of a broad base of skills appropriate for teaching health occupations.
2. Knowledge of the concepts, methods, techniques and practices of a health occupation area of specialization.
3. A current Vermont Licensure/Certification to practice the specific health occupation of specialization.
4. Familiarity with two health occupation areas other than the area of specialization.
5. Knowledge of the roles, practices, procedures and technologies associated with entry level positions in the health occupation areas.
6. Knowledge of local, state and federal laws regulating health care education and practices in the health occupations.
7. Ability to teach students the entry level skills and practices of several health occupation areas, as well as to teach students about the role of the health workers, local, state and federal regulations, and professional ethics associated with the health professions being taught.
8. Ability to plan, organize, implement and evaluate students' clinical experiences including the ability to judge the appropriateness of a placement site, the ability to set the criteria for student performance, and the ability to conduct regular evaluations of students' clinical performance.
9. Ability to introduce students to the current technologies appropriate for entry level health occupations workers.
10. Ability to establish laboratory procedures and routines in order to optimize safety.
11. Ability to teach students about the safe and appropriate handling of patients and equipment.
12. Ability to establish and maintain good communications with local health institutions and agencies, including the ability to advocate for the role of the entry level health worker in the community.
13. Ability to introduce students to employment and career opportunities associated with the health occupation of specialization.
14. Ability to maintain a high level of competence in the skills associated with the health occupation area of licensure and to maintain competence in the skills associated with other health occupations.
15. Ability to integrate new skills, technologies, concepts and other developments in the health occupation into the curriculum.

5440-34 Health Services (Cont'd)

16. Ability to assemble and use an advisory committee of community members to assist in curriculum development and program evaluation.
17. Ability to develop student skills in leadership, citizenship and interpersonal relations, as well as to develop appropriate work attitudes and habits through activities which may include those offered by Vocational Industrial Clubs of America.

5440-35 Marketing and Sales Services

The holder is authorized to teach marketing and sales services in grades 9-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. Knowledge of the concepts, methods, techniques and practices associated with one of the following areas of specialization:
 - a. distribution and marketing;
 - b. hospitality.
2. A total of one year of practical work experience in distributive or hospitality occupations.
3. Ability to involve students of all abilities in the concepts, methods, techniques, practices and new technologies of distributive and hospitality occupations.
4. Ability to teach students how to purchase, safely operate, and maintain machinery or equipment, as appropriate for distributive or hospitality occupations.
5. Ability to involve students in simulations or actual work experiences in distributive or hospitality occupations.
6. Ability to introduce students to employment and career opportunities in either distributive or hospitality occupations.
7. Ability to maintain a high level of skill performance in distributive or hospitality occupations.
8. Ability to integrate new skills, technologies, concepts, and other developments into the curriculum.
9. Ability to assemble and use an advisory committee of community members to assist in curriculum development and program evaluation.
10. Ability to develop student skills in leadership, citizenship, and interpersonal relations, as well as to develop appropriate work attitudes and habits through activities which may include those offered by Distributive Education Clubs of America.

Marketing

1. Marketing principles related to merchandising, business operation, display, advertising, and selling; and basic economic principles and practices such as the use of resources, the functions of marketing, concepts such as profits, risks, supply and demand, competitions.
2. Key areas in human relations including interrelationships within and between groups, theories of motivation, and self-concept development, facility with communication skills including interpretation of spoken words, uses of vocabulary, voice, and gesture; listening skills and using the telephone; writing skills in the area of letter and report writing and filling out forms; and reading skills.
3. Key business management concepts, such as business planning financial and personnel considerations, store layout and customer service.

5440-35 Marketing and Sales Services (Cont'd)

4. Computer technologies and basic mathematical skills important to distribution and marketing education.

Hospitality

1. Knowledge of the concepts, methods, techniques and practices associated with the operations and management of hospitality occupations.
2. Knowledge of skills associated with hospitality service personnel including dining room manager, host or hostess, waiter or waitress, busperson, cashier, bartender, institutional or home housekeeper, and front desk's clerk.
3. Knowledge of standards of cleanliness, sanitation practices, dress practices, attitudes, and etiquette appropriate for effective communications with customers, co-workers, and supervisors in the hospitality services.
4. Knowledge of the most current computer technology associated with hospitality services.
5. Knowledge of first aid techniques, effective ways of eliminating safety hazards; and appropriate local, state and federal laws associated with hospitality occupations and services.

5440-32 Occupational Family and Consumer Sciences

The holder is authorized to teach occupational family and consumer sciences and human services programs in grades 9-12.

In order to be judged as competent, the candidate must have the following qualifications:

1. Knowledge of the concepts, methods, techniques and practices associated with one of the areas of occupational home economics:
 - a. human services;
 - b. clothing management, production, and services.
2. A total of one year of practical experience resulting in the acquisition of knowledge and skills in the area of specialization.
3. Ability to teach the basic principles, practices, skills, and new technologies in either human services or clothing management, production, and services.
4. Ability to teach students safety procedures with clients and equipment in the area of specialization.
5. Ability to teach students about the administration, management, and operation of either human services agencies and institutions or textile production and services businesses.
6. Ability to introduce students to employment and career opportunities in the area of specialization.
7. Ability to maintain a high level of competence in the skills associated with the area of specialization.
8. Ability to integrate new skills, technologies, concepts, or other developments into the area of specialization.
9. Ability to assemble and use an advisory committee of community members to assist in curriculum development and program evaluation.
10. Ability to develop student skills in leadership, citizenship and interpersonal relations, as well as to develop appropriate work attitudes which may include those offered by the Future Homemakers of America and home economics related occupations.

Required knowledge in the area of specialization (see #1 above):

Human Services

1. Knowledge of the practical care needs of infants, children adolescents, the handicapped, and the elderly in the physical, emotional and mental domains, including:
 - a. knowledge of the normal pattern of human growth and development including common handicapping conditions and their causes;
 - b. knowledge of effective coping skills which can be taught to adolescents;
 - c. knowledge of the physical, psychological and socioeconomic changes associated with aging and how to assist the elderly with personal, social and business affairs;

5440-32 Occupational Family and Consumer Sciences (Cont'd)

- d. knowledge of caring technologies for working with the terminally ill, their families, and the personnel who work with the terminally ill. Human Services
- 2. Knowledge of the practical care needs of infants, children adolescents, the handicapped, and the elderly in the physical, emotional and mental domains, including:
 - a. knowledge of the normal pattern of human growth and development including common handicapping conditions and their causes;
 - b. knowledge of effective coping skills which can be taught to adolescents;
 - c. knowledge of the physical, psychological and socioeconomic changes associated with aging and how to assist the elderly with personal, social and business affairs;
 - d. knowledge of caring technologies for working with the terminally ill, their families, and the personnel who work with the terminally ill.
- 3. Knowledge of how to teach students to deliver human service programs and services including teaching students to:
 - a. perform basic first aid skills, plan and deliver nutritional meals/snacks, maintain sanitary practices eliminate safety hazards, and comply with all appropriate state and federal regulations when working in the human services;
 - b. plan and carry out activities in arts, crafts, language arts, music, science, social studies, mathematics, and drama and foster creativity during free play time with individuals and with small and large groups;
 - c. plan and maintain facilities, equipment and supplies as well as identify and use community resources including guest speakers, cultural institutions and special interest organizations to supplement the human services program;
 - d. organize schedules and available human material resources to deliver effective human services programs;
 - e. develop and maintain accurate and appropriate records to monitor and evaluate clients and programs;
 - f. use effective communication techniques and other human service skills to work with human services clients;
 - g. develop positive work attitudes to facilitate and maintain employment.

Clothing Management, Production, and Services

- 1. Knowledge of fabrics, notions, equipment, and terms common to the clothing/textile production and service trade including knowledge of standards for construction, altering and mending textile products, and of how to construct garments, draperies, curtains, slip covers, and other furnishings according to pattern or designer's specifications.
- 2. Knowledge of how to purchase, maintain, and operate industrial equipment used in the textile/clothing trade such as sewing machines and irons.
- 3. Knowledge of marketing and merchandising principles and practices appropriate for the textile/clothing trade.
- 4. Knowledge of state and federal regulations associated with the textile/clothing/production and service industry.

5440-18 Technical Professional Education

The holder is authorized to teach one or more technical courses of study in grades 9-12 as specified on the endorsement.

In order to qualify for this endorsement, a candidate must demonstrate the following:

Core Knowledge Standards:

Demonstrates knowledge of planning, delivering, and evaluating instruction based upon knowledge of subject matter, integration of Career and Technical Student Organization standards, Vermont's Career and Technical knowledge and skills competencies, and student, community and workforce needs, including industry standards and procedures¹ for the particular specialization, and Vermont's Framework of Standards and Learning Opportunities. Specifically, the educator understands:

The role, responsibility, legal, and ethical requirements of the specific area of instruction

Integration and principles of applied academic areas necessary for success in the specific career preparation area

Current and emerging technologies relevant to the specialized curriculum

The career development/planning process and the integration of employability skills into the curriculum

The significant role of partnerships and collaborative relationships with industry, organized labor, parents, agencies, post secondary institutions and the community in delivering the curriculum, and how to form advisory committees

Incorporation of essential entrepreneurial skills into the curriculum

How to foster the development of students' leadership skills through delivery of the curriculum, and incorporation of appropriate career and technical student organization standards into the curriculum

Current local, state, and federal safety regulations

Core Performance Standards:

The educator implements a comprehensive, standards-based curriculum that incorporates industry skill standards and enables students to acquire the knowledge, skills, and attitudes that will prepare them to succeed in the chosen career preparation area. Specifically the educator:

Develops learning opportunities that integrate industry-recognized credentials and incorporate current components of all aspects of industry

Consults with industry advisory committees, colleagues, community, and parents to maximize curricular and instructional resources, and develops work-based learning experiences

Plans, organizes, and manages laboratories/technical facilities for instruction so that activities are carried out in accordance with state and national safety guidelines and in compliance with all local, state and federal regulatory codes governing the industry

Fosters the development of students' leadership, teamwork, and effective communication skills, and teaches deportment in a manner appropriate to the industry

5440-18 Technical Professional Education (Cont'd)

Advises students in the career planning process and teaches foundation employability skills as indicated in the program core competencies developed by industry and education

Prepares students for third-party assessments

Additional Requirements:

An AA degree or the equivalent

An industry recognized credential offered in the program of instruction

A total of three or more years of recent occupational experience in the area of specialization within one of the following career areas:

- A. Agriculture and Natural Resources
- B. Business and Administration
- C. Health and Human Services

Successful completion of the Mentorship Program for Technical Professional and Trades and Industry educators

In addition to the core competencies listed above, the instructor will demonstrate proficiency in and meet the following competencies for one or more specialization areas through the required work experience.

1. Agriculture and Natural Resources
 - a. Agricultural Mechanics – Knowledge of how to safely operate, maintain, and repair agricultural power units, agricultural machinery, and power tools. Knowledge of electricity, motors, and controls. Knowledge of how to safely weld and cut.
 - b. Veterinary Technician – Knowledge of livestock handling, care and management including feeding, breeding, diseases, and training. Knowledge of veterinary office practices and procedures.
 - c. Agribusiness Management Technician – Knowledge how to start and manage a small business. Knowledge of record keeping, budgeting, planning, banking, contracts, and insurance.
 - d. Landscape Development Technician – Knowledge of designing and planning landscape projects. Knowledge of plants and materials used. Knowledge of installation of project plans. Knowledge of how to safely operate and maintain landscape power equipment and tools.
 - e. Ornamental Horticulture Technician – Knowledge of the culture and use of plant materials. Knowledge of the operation and management of a growing facility.
 - f. Animal Science Technician - Knowledge of livestock handling, care and management including feeding, breeding, diseases, and training. Knowledge of the operation of an animal science facility and business.

5440-18 Technical Professional Education (Cont'd)

- g. Fish and Wildlife Technician – Knowledge of fish and wildlife species, life cycle, care, and habitat management. Knowledge of sport and recreation applications.
 - h. Natural Resource Technician – Knowledge of the ecology and management of ecosystems. Knowledge of the safe use of power equipment and tools.
2. Business and Administration
- a. Keyboarding – Knowledge of, proficiency and ability to teach correct keyboarding techniques to enter and manipulate text and data, and office/business skills to operate the most current and emerging technology and equipment appropriate for handling office operations.
 - b. Health Information Management – Knowledge of, proficiency and ability to teach medical terminology including procedural and diagnostic coding; medical transcription, medical insurance and reimbursement, and overall knowledge of the health information and management field.
 - c. Legal Office Procedures – Knowledge of, proficiency and ability to teach correct office procedures specific to the legal field.
 - d. Computer Technology – Network Administration – Knowledge of, proficiency and ability to teach Network Administration by meeting the competencies as indicated in the Information Technology category of the Trades and Industry Endorsement.
3. Health and Human Services
- a. Dental Assistant – Knowledge of, proficiency, and ability to teach oral hygiene procedures, performance of laboratory tasks, chairside procedures, state regulation governing dental assisting, nutrition as it relates to dental health, dental clerical tasks, dental anatomy knowledge, ability to instruct patients in dental health.
 - b. Physical Therapy Assistant – Knowledge of human anatomy and physiology, including systems (muscular, skeletal, neurological), and ability to teach their relationships and manipulative techniques related to correction procedures.
 - c. Nurse Assistant – Knowledge of, proficiency and ability to teach skills in all areas as prescribed for the state licensing exam and the knowledge and skills needed for performing and recording advanced procedures in an acute care facility.
 - d. Human Services Assistant – Knowledge of human growth and development throughout the lifespan, and proficiency in the health, safety, and welfare issues related to childcare and geriatrics.
 - e. Teacher Assistant – Knowledge of human development and learning theories, proficiency in teaching methodologies, and the monitoring and management of students.

¹. *States' Career Cluster Initiative, (2002, National Association of State Directors for Career and Technical Education Consortium)*

5440-17 Trades and Industry

The holder is authorized to teach one or more trades and industry courses of study in grades 9-12, as specified on the endorsement

In order to qualify for this endorsement, a candidate must demonstrate the following:

Core Knowledge Standards:

Demonstrates knowledge of planning, delivering, and evaluating instruction based upon knowledge of subject matter, integration of Career and Technical Student Organization standards, Vermont's Career and Technical knowledge and skills competencies, and student, community and workforce needs, including industry standards and procedures¹. Specifically, the educator understands:

The role, responsibility, legal, and ethical requirements of the specific trade or industry

Integration and principles of applied academic areas necessary for success in the specific career cluster of the Trades and Industry curriculum

Current and emerging relevant technologies

The career development/planning process and the integration of employability skills into the curriculum

The significant role of partnerships and collaborative relationships with industry, organized labor, parents, agencies, post secondary institutions and the community in delivering the curriculum, and how to form advisory committees

Incorporation of essential entrepreneurial skills into the curriculum

How to foster the development of students' leadership skills through delivery of the curriculum, and incorporation of appropriate career and technical student organization standards into the curriculum

Current local, state, and federal safety regulations

Core Performance Standards:

The educator implements a comprehensive, standards-based curriculum that incorporates industry skill standards and enables students to acquire the knowledge, skills, and attitudes that will prepare them to succeed in the chosen trade or industry. Specifically the educator:

Develops learning opportunities that integrate industry-recognized credentials and incorporate current components of all aspects of industry

Consults with industry advisory committees, colleagues, community, and parents to maximize curricular and instructional resources, and develops work-based learning experiences

Plans, organizes, and manages laboratories/technical facilities for instruction so that activities are carried out in accordance with state and national safety guidelines and in compliance with all local, state and federal regulatory codes governing the trade or industry

Fosters the development of students' leadership, teamwork, and effective communication skills, and teaches department in a manner appropriate to the industry

5440-17 Trades and Industry (Cont'd)

Advises students in the career planning process and teaches foundation employability skills as indicated in the program core competencies developed by industry and education

Prepares students for third-party assessments

Additional Requirements:

A high school diploma or the equivalent

An industry-recognized credential offered in the program of instruction

A total of six or more years of recent trade experience leading to a broad base of knowledge and skills in the pathway/concentration area of instruction;

(In order to teach in additional pathways within the same career cluster, the instructor will have 2 years of work experience in the additional pathway(s).)

Successful completion of the Mentorship Program for Technical Professional and Trades and Industry educators

Pathway/Concentration Areas:

1. Arts, A/V Technology and Communications

- a. Performing Arts
 - 1. Technical Dance
 - 2. Technical Theater
 - 3. Technical Music
- b. Visual Arts
 - 1. Graphics Design and Production
 - multimedia
 - printing
 - 2. Stone Arts
- c. Audio And Video Technologies
 - 1. Audio and Video Technical Support
 - Computer Visualization and Animation
- d. Journalism and Broadcasting
 - 1. Professional Writing
 - 2. Radio/TV Broadcasting
- e. Printing Technologies

2. Architecture and Commercial Construction

- a. Design-Pre-Construction
 - 1. Drafting/CAD
- b. Construction
 - 1. Carpentry
 - 2. Millwork, and Cabinetmaking
 - 3. Masonry
 - 4. Plumbing and Heating
 - 5. Industrial Electricity
 - 6. Residential Wiring
 - 7. Heating, Air Conditioning, Refrigeration

5440-17 Trades and Industry (Cont'd)

- c. Maintenance Operations
 - 1. Industrial Maintenance
 - 2. Plumbing and Heating
 - 3. Industrial Electricity
 - 4. Residential Wiring
 - 5. Heating, Air conditioning, Refrigeration

3. Hospitality and Tourism

- a. Food and Beverage Management/Culinary Arts
- b. Lodging Management
- c. Travel, Tourism
- d. Recreation and Attractions

4. Information Technology

- a. Information Technology Services
 - Computer Technical Support
 - Data Systems Designers
- b. Network Design/Administration
- c. Programming and Software Development
- d. Interactive Media

5. Law, Public Safety, and Security

- a. Emergency and Fire Management Services
- b. Law Enforcement
- c. Legal Services

6. Manufacturing

Production

- welding
- metal working

7. Scientific Research Engineering & Mathematics

Engineering Technology

- Electronics Occupations
- Electronics Communications

8. Transportation, Distribution and Logistics

Mobile Equipment Maintenance

- Automotive Mechanics
- Collision Repair
- Aircraft Mechanics
- Truck/Diesel Operations & Repair
- Heavy Equipment Operator

9. Personal Care Services

- Cosmetology
- Massage therapy

¹. *States' Career Cluster Initiative*, (2002, National Association of State Directors for Career and Technical Education Consortium)

². *Ibid*

5440-89 Other

The holder is authorized to practice in a field for which his/her preparatory experience qualifies and where Vermont has no equivalent endorsement.